AMERICAN GAS ASSOCIATION

Monthly

E.V.F. SEP 21 1955

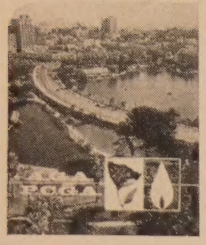
EPTEMBER
1955

CALORIC *adds an extra-large oven and a barbecue oven to the features of the new "CF" automatic Gas ranges. See them at your*

Shop and save during old stove round-up time and look to GAS for the smartest range

Look at it this way. Your husband doesn't drive a Model T. . . your children don't listen to a "gramophone". . . Why should your cooking skill be impaired by an out-of-date appliance? Even a "born cook" shows up to better advantage with a new automatic Gas range. Broiling is both smokeless and superb. Top burners really can be turned down to a gentle simmer. You get the evenest baking in the world. Your new range is bigger, easier to keep clean, much more efficient. (It can even turn its own oven on and off.) It's not only a smart buy now, but a wise investment for the future. Why delay? You can't do better than today's prices. And remember — only Gas ranges cost so little to buy, install and use.

Only Gas gives such matchless performa



Palm trees and freeways are hallmarks of Los Angeles, scene of A. G. A.-PCGA Convention

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As ANOTHER summer, hot and humid over wide regions of the U. S., draws to a close, many gas men are wondering when gas will increase its share of the burgeoning air conditioning load, especially in the domestic market. Just what is being done in the field of research is set forth by Leon Ourusoff, chairman of A. G. A. Air Conditioning Task Group. His report, which includes an evaluation of existing and potential types of gas air conditioning, begins on page 6. . . . The weather will be perfect in Los Angeles all during the week beginning October 16. We have this forecast from reliable sources within the Pacific Coast Gas Association. Coincidentally, during that very week PCGA will be host to A. G. A. members at the joint Convention. For final details of an excellent program, turn to page 2. . . . A number of delegates to the Sixth Conference of the International Gas Union, to be held in New York September 25-30, have indicated their intentions of also attending the A. G. A.-PCGA Convention. IGU national reports and individual papers dealing with a wide range of gas industry topics have been printed in advance and are now being distributed to delegates. A complete set will be a valuable addition to anyone's library.

JAMES M. BEALL
DIRECTOR, PUBLIC INFORMATION

VAUGHAN O'BRIEN
EDITOR

RICHARD F. MULLIGAN
ART SUPERVISOR

MARGARET A. BLOCH
NEWS EDITOR

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THIS MONTHLY IS INDEXED BY THE INDUSTRIAL ARTS INDEX

VOL. 37 NO. 9

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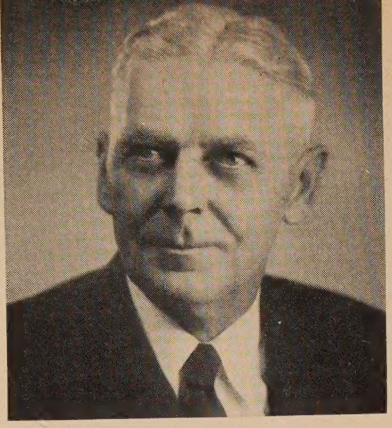
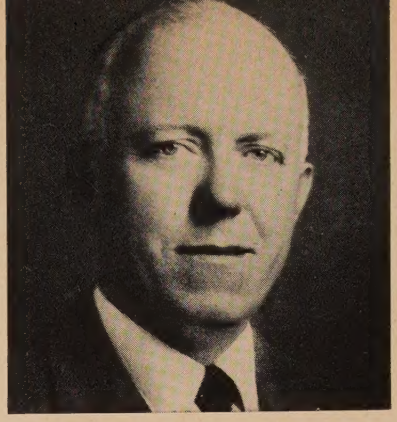
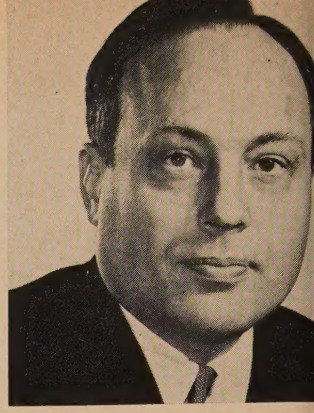


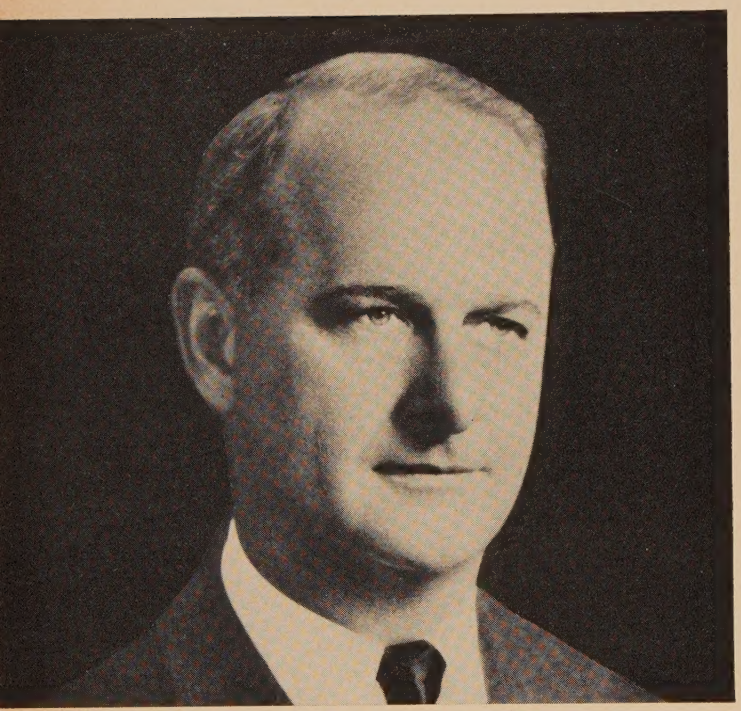
PCGA President E. D. Sherwin will conduct Wednesday joint luncheon session



T. T. Arden, GAMA president, will talk on "The 'New Look' at Gas Appliances"



J. F. Merriam, INGAA presiden to discuss the natural gas



A. G. A. President F. M. Banks will preside at Convention general sessions

USC Dean Lawrence C. Lockley will predict America's future buying habits

R. R. Blackburn, Southern Co head of General Convention C

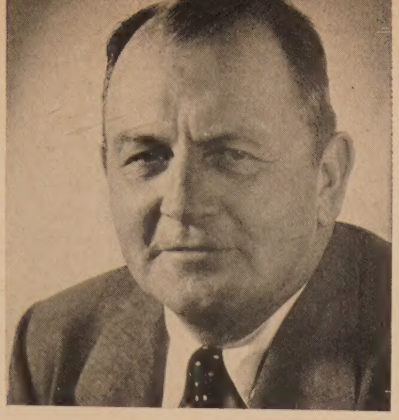
Program ready for joint convention

An impressive roster of nationally prominent speakers has been assembled to address the General Sessions meetings of the American Gas Association—Pacific Coast Gas Association Convention in Los Angeles, October 17-19, according to Program Chairman Robert A. Hornby, executive vice-president, Pacific Lighting Corporation. Mr. Hornby reports he has firm commitments from an outstanding group of leaders in fields of education, banking, industry, religion and government, each to deliver an address on his specialty.

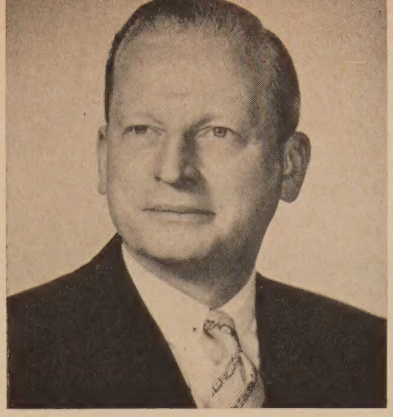
Among the scheduled speakers are Norris A. Poulson, Mayor of Los Angeles and former Congressman, who will welcome delegates, and J. Ed Warren, vice-president of the First National City Bank of New York, who will speak on "What's and Where's of Our Energy Needs and Supplies." Thomas T. Arden, president of Gas Appliance Manufacturers Association, and executive vice-president, Robertshaw-Fulton Controls Co., will report on "The 'New Look' at Gas Appliances."

Lawrence C. Lockley, dean, School of Commerce, University of Southern California, will discuss "Future Buying Hab-

geles' Mayor N. A. Poulson will welcoming address to delegates

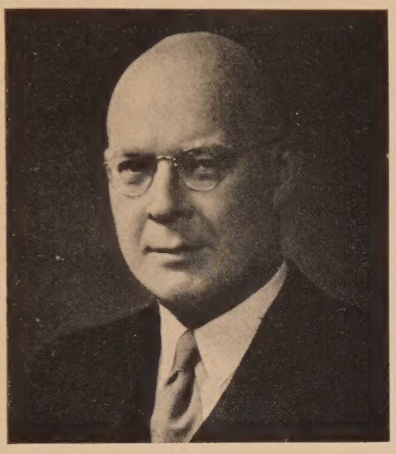


J. Ed Warren, bank vice-president, is scheduled to speak on energy supplies



R. A. Hornby, Pacific Lighting Corp., acts as Convention program chairman

luncheon will hear address on Gods" by Dr. James W. Fifield



Everett J. Boothby will present report of 1955 General Nominating Committee

Treasurer's report at Monday general session will be given by V. T. Miles

its of the American Public." John F. Merriam, president, Independent Natural Gas Association of America, and president, Northern Natural Gas Co., will talk on "The Natural Gas Industry." Goodwin J. Knight, Governor of California, has been asked to make the closing remarks at the third General Session.

Dr. James W. Fifield, Jr., pastor of the First Congregational Church of Los Angeles, will address the joint A. G. A. —PCGA luncheon closing the convention on the subject "False Gods."

F. M. Banks, president, Southern California Gas Co., and president, A. G. A., will preside at the General Sessions to be held Monday, Tuesday and Wednesday mornings at The Pacific Ballroom in the Hotel Statler. On Monday the program will include a report by Vincent T. Miles, Long Island Lighting Co., and treasurer of A. G. A. and the President's Address to be given by Mr. Banks.

Everett J. Boothby, president, Washington Gas Light Co., will submit the slate of officers and directors named by the Nominating Committee, which he heads, and officers for the 1956 Association year will be elected.

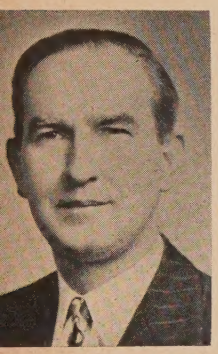
On Tuesday morning President Banks will make presentations of awards to the winners of the A. G. A. Distribution Achievement Award, the A. G. A. Distinguished Service Award, the Home Service Achievement Awards, the Beal Medal Award, and Safety Achievement Awards.

A trip to Disneyland—fabulous new entertainment center —will attract most of the 3,000 delegates on the evening of October 18, according to Frank Seitz, Southern Counties Gas Co., chairman of the Entertainment Committee. A gigantic western barbecue is to be staged for delegates at the Anaheim playground.

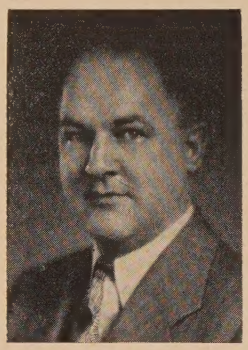
This is only one part of the relaxation and recreational program being arranged for delegates and their wives. The traditional President's Reception is scheduled for Monday evening. On Tuesday there will be a Ladies Luncheon and Style Show staged at the new Beverly-Hilton Hotel.

The facilities of two top golf courses, Riviera Country Club and Oakmont Country Club will be available. Golfers may register individually or for foursomes at the Ambassador,

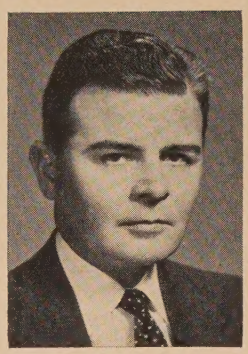
Accounting



Section Chairman A. T. Gardner will preside at the Section meeting

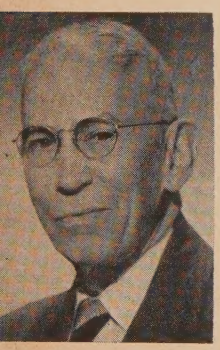


D. W. Peterson will be presiding officer at the luncheon meeting



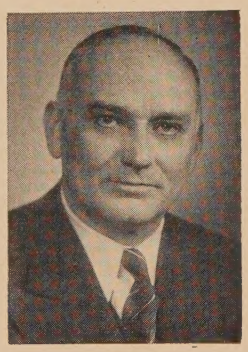
J. S. Green will discuss integrating internal audit methods

Industrial and Commercial



Industrial and Commercial Chairman R. Trowbridge will officiate

R. D. MacMahon will detail integration of local, national sales

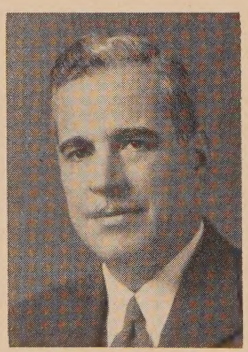


A. G. A. Atomic Energy Committee Chairman F. D. Campbell will speak

Operating

Section Chairman's report will be delivered by Walter H. Davidson

K. B. Nagler outlines management's responsibility for safety



Advantages of underground storage will be cited by C. E. Loomis

Statler and Biltmore hotels. No tournament has been planned, and individuals will be grouped in foursomes.

The General Convention Committee, headed by R. R. Blackburn, vice-president, Southern Counties Gas Co., and the Registration Committee, headed by George Coates of the same company, urge advance registrations be made on the forms mailed to all members of A. G. A. and PCGA.

"If you know you will attend, it will help both you and the Registration Committee if you will register in advance," Mr. Blackburn said. "This will help avoid delays at the registration desks."

The Honolulu Gas Company is joining with the Hawaii Visitors Bureau in plans for a most attractive post-convention trip. All delegates holding advance hotel reservations will receive invitations and brochures. The company is making plans for extending the renowned hospitality of the Hawaiian Islands to visiting delegates.

Although the demand for hotel reservations has been heavy, there are still many unusually desirable rooms and suites available. These facilities are located in the Biltmore, Clark, Chapman Park, Mayflower, Mayfair, and Savoy hotels. Assignments will be made in the order that requests are received.

Direct inquiries to the A. G. A. Housing Committee, Convention Bureau, Los Angeles Chamber of Commerce, 1151 South Broadway Street, Los Angeles 15, California. Type of accommodations desired, with arrival and departure dates should be indicated. No deposit is required.

There will be a registration fee of $20 for delegates and $10 for ladies accompanying delegates. Registration fees include admissions to all sessions and social functions of the Convention. Badges will be required for admissions to all meetings and recreational events and will be issued at the registration desks.

Delegates are urged to register and purchase tickets in advance for the scheduled luncheons and the Home Service Breakfast. Delegates can be assured of eliminating delays and standing in line at registration desks by filling out an advance registration form indicating the tickets desired. Send the form with remittance to the American Gas Association, 420 Lexington Ave., N. Y. 17, N. Y., not later than October 1. A receipted registration card and the breakfast and/or luncheon tickets will be sent you.

The registration card should be exchanged at one of the three registration desks as soon as possible after arrival in Los Angeles. Refunds to delegates unable to attend the convention will be made on pre-registrations upon application to A. G. A. Headquarters before December 1.

Early registrations of delegates are urged. Desks will be located at the Ambassador, Biltmore and Statler hotels and will be open from one to five p.m., Sunday, October 16, and from 8:30 a.m. to five p.m. from Monday, Oct. 17, through Wednesday, Oct. 19. Special tickets are required for the PCGA luncheon meeting, the Home Service Breakfast, the Accounting Section luncheon and for the luncheons of the General Management Section and the combined luncheon of the Residential Gas and the Industrial and Commercial Gas Sections.

A parade of the latest magazine-featured New Freedom Gas Kitchens and Laundries will be on display during the Convention in the Assembly Room of the Hotel Statler and on the main floor of the Southern California Gas Company building, 810 South Flower Street, Los Angeles.

A daily newspaper covering Convention events and news will be published by courtesy of the Robertshaw-Fulton Controls Company. A daily printed list of registered delegates will be provided as a special service of the Pacific Telephone & Telegraph Company. These lists will be available at the registration desks. A. G. A. Convention offices will be located in the Hotel Statler; and the press room of the A. G. A. Public Information Bureau will be located in Conference Room 5 of the Biltmore Hotel.

Transportation by chartered busses will be provided at no cost to registered delegates to minimize travel difficulties in attending widespread Convention events. Organized tours of the Los Angeles facilities of the Southern California Gas Co., Southern Counties Gas Co., and Pacific Lighting Gas Supply Company can be made Thursday, October 20. Information concerning these tours will be supplied on registration.

An open house will be maintained Thursday at the A. G. A. Testing Laboratories, 1425 Grande Vista Avenue, Los Angeles. Here delegates can see the Pacific Coast branch of the gas industry's "National Appliance Testing Agency" at work.

Delegates are advised that cosmopolitan and casual attire mingle in Los Angeles. Dress at all Convention functions is optional. Light coats will be needed for evening comfort.

Section programs for the Convention have taken final shape and hold promise of interest for all delegates. The General Management Section will have a luncheon and afternoon session in the Golden State Room at the Hotel Statler on Monday, October 17. The Corporate Secretaries Committee will hold an open business meeting at two p.m. Tuesday, October 18, at the Statler.

The General Management Section program features three speakers. At the 12:30 p.m. luncheon, Jesse W. Tapp, chairman of the board of the Bank of America, will discuss his bank's approach to business problems and its relation to the business development of an area. In the afternoon session, Emmett J. Leahy, New York, will talk on paperwork management. Mr. Leahy was head of the Paperwork Management Task Force of the recent Hoover Commission.

Closing speaker will be Guy Corfield, research engineer, Southern California Gas Co.; he will report on the gas industry's part in the recent atomic tests, where he served as project engineer. George L. Harding, president, American Society of Corporate Secretaries, will lead a round-table discussion of Corporate Secretaries' problems and methods at the Tuesday, October 18, meeting.

The Accounting Section will hold two sessions in the Statler Hotel. On Monday afternoon, October 17, the first session will convene in the Los Angeles Room, with Austin T. Gardner, Delaware Power and Light Co., presiding as Section chairman. Welcome to delegates will be extended by J. L. Liecty, Arizona Public Service Co., chairman, PCGA Accounting Section.

J. E. Hobson, director, Stanford Research Institute, Menlo Park, Calif., will present a paper on "Operations Research." The second speaker on Monday is R. H. Johnson, general auditor, The Brooklyn Union Gas Co., and chairman, A. G. A. General Accounting Committee. He will discuss cost control under the heading: "Are You Really Managing Costs?"

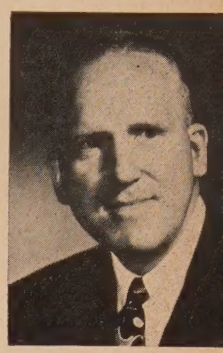
The report of the Nominating Committee, headed by Paul E. Ewers, Michigan Consolidated Gas Co., will be submitted

(Continued on page 24)

Residential

Section session will be started by Chairman Walter H. Kurdelski

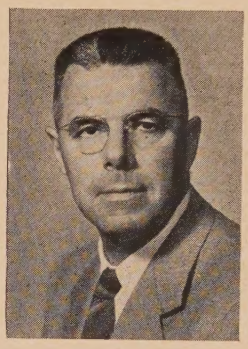
"Forward Is the Buy-Word" is the title of talk by L. L. Baxter



Gas Industry Development Chairman J. Theodore Wolfe will speak

General Management

Section Chairman Larry Shomaker will preside at meeting on Monday



Gas and the atom blast will be theme for the speech by Guy Corfield

J. W. Tapp will speak on "Our Dynamic Economy-Western Style"

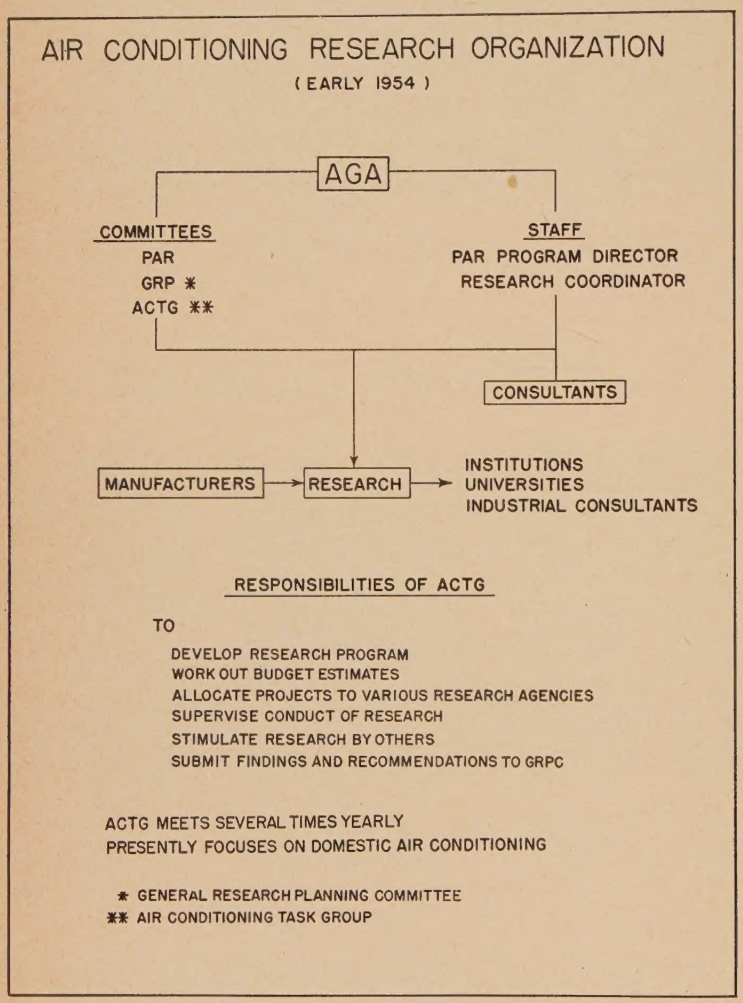
Home Service

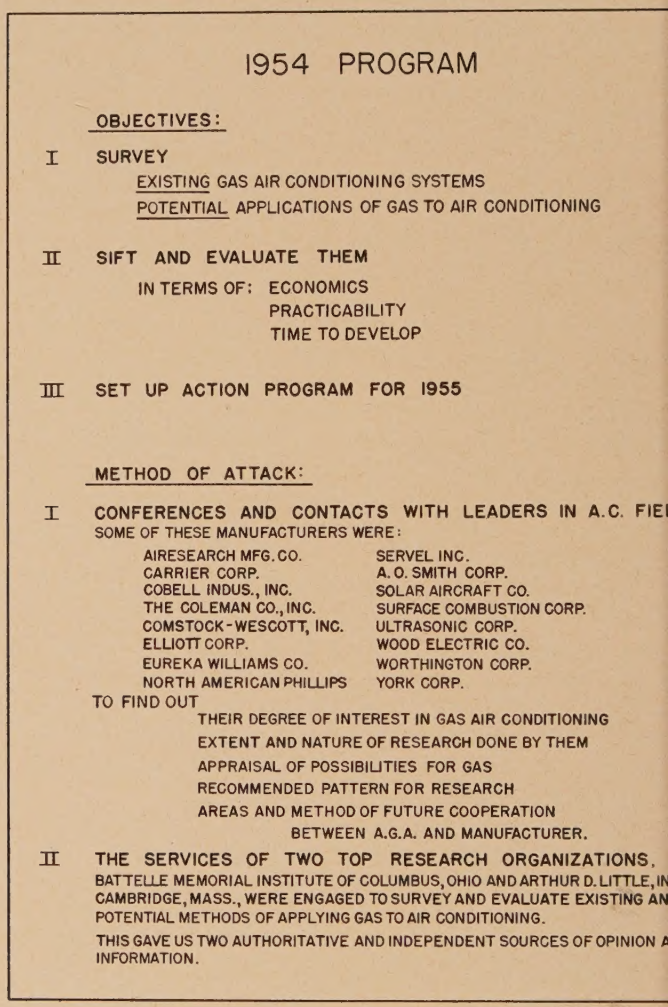
A. G. A. Home Service Committee Chairman K. L. Rathbone presides

Elizabeth Sweeney Herbert of "McCall's" will talk on kitchens

Home laundries is the theme of a discussion by Maxine Livingston

A.G.A. Air Conditionin




1954 PROGRAM
OBJECTIVES:
I SURVEY
EXISTING GAS AIR CONDITIONING SYSTEMS
POTENTIAL APPLICATIONS OF GAS TO AIR CONDITIONING
II SIFT AND EVALUATE THEM
IN TERMS OF: ECONOMICS
PRACTICABILITY
TIME TO DEVELOP
III SET UP ACTION PROGRAM FOR 1955
METHOD OF ATTACK:
I CONFERENCES AND CONTACTS WITH LEADERS IN A.C. FIEL
SOME OF THESE MANUFACTURERS WERE:
AIRESEARCH MFG. CO.
CARRIER CORP.
COBELL INDUS., INC.
THE COLEMAN CO., INC.
COMSTOCK-WESCOTT, INC.
ELLIOTT CORP.
EUREKA WILLIAMS CO.
NORTH AMERICAN PHILLIPS
SERVEL INC.
A. O. SMITH CORP.
SOLAR AIRCRAFT CO.
SURFACE COMBUSTION CORP.
ULTRASONIC CORP.
WOOD ELECTRIC CO.
WORTHINGTON CORP.
YORK CORP.
TO FIND OUT
THEIR DEGREE OF INTEREST IN GAS AIR CONDITIONING
EXTENT AND NATURE OF RESEARCH DONE BY THEM
APPRAISAL OF POSSIBILITIES FOR GAS
RECOMMENDED PATTERN FOR RESEARCH
AREAS AND METHOD OF FUTURE COOPERATION
BETWEEN A.G.A. AND MANUFACTURER.
II THE SERVICES OF TWO TOP RESEARCH ORGANIZATIONS,
BATTELLE MEMORIAL INSTITUTE OF COLUMBUS, OHIO AND ARTHUR D. LITTLE, IN
CAMBRIDGE, MASS., WERE ENGAGED TO SURVEY AND EVALUATE EXISTING AN
POTENTIAL METHODS OF APPLYING GAS TO AIR CONDITIONING.
THIS GAVE US TWO AUTHORITATIVE AND INDEPENDENT SOURCES OF OPINION A
INFORMATION.

By L. OURUSOFF

Chairman, Domestic Gas Research Committee and Air Conditioning Task Group

a PAR activity

Realization of the crucial importance to our industry of summer air conditioning, not only as excellent load factor business, but also as protection to existing and basic gas loads, has prompted the creation, early in 1954, of an aggressive program of American Gas Association air conditioning research.

The first objective of the program is to develop better and more competitive gas summer air conditioning units for homes; this includes the evaluation of different methods of "year 'round" conditioning—the gas heat pump among them. A secondary objective is to improve gas air conditioning systems for the commercial market.

Our organizational setup for this program is shown at left above.

The 1954 activities, consisting mainly of a search for new systems and devices and critically reviewing contemporary methods, are summarized at right above.

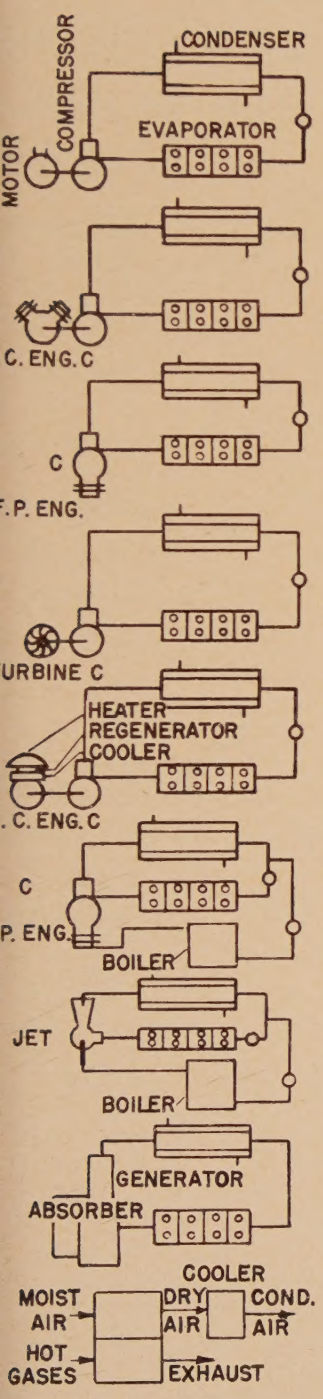
Results of these searches and reviews are listed on page 7 wherein a certain number of existing and potentially re-

(Continued on page 8)

Research Program

1954 A. G. A. PROGRAM

GLOSSARY OF GAS AIR CONDITIONING SYSTEMS STUDIED OR REVIEWED BY BATTELLE, A. D. LITTLE, MANUFACTURERS, AND A. G. A.



Conventional Electric. Hermetically sealed motor-compressor. Quiet operation and long life. Mass produced. Adaptable to air cooled condensing unit. Coefficient of performance in small sizes is 3.0 or better. Transformable into air to air heat pump by reversing flow of refrigerant from condenser to evaporator and vice versa.

Internal Combustion Crank Shaft Engine—Compressor Unit. State of development—fair. Noise—Vibration—Maintenance—Control, are problems which may be rapidly improved through intense development. Suitable for outdoor installation. First cost higher than electric but operating cost is advantageous. Good possibility for heat pump adaptation.

Internal Combustion Hermetically Sealed Free Piston—Compressor Unit. Development just started and there are some very hard problems to overcome. Otherwise, there is promise of long life, low operating, first and maintenance cost and compactness.

Gas Turbine—Compressor Unit. In domestic sizes this combination offers little promise. Tremendous speeds are necessary. Costly materials. Low efficiency.

External Combustion—Compressor Unit. Sterling Cycle air engine. Heat applied externally to cylinder head. Air is (a) isothermally compressed (b) raised in temperature at constant volume (c) isothermally expanded (d) cooled at constant volume. Although theoretical possibilities are interesting, models tried so far were disappointing. Heavy construction. Clean combustion.

The Double Loop Expander—Compressor System. One fluid may be used both as heat energy transmitter and as refrigerant. Vapor generated in boiler expands in cylinder of free piston engine and compresses refrigerant which flows through condenser to evaporator. A portion of the condensed fluid however is returned to the boiler where it is re-evaporated. Low stage of development. Possibilities of good efficiency plus advantage of closed system.

Double Loop Jet Pump System. Same as preceding, except that a jet or ejector pump does the compression work. Potential efficiency of jet is low but first cost and maintenance may be relatively attractive.

Absorption. This is the only type of residential gas air conditioning fully commercialized. It has many advantages known to all including fairly high efficiency but after fifteen years of development and use it is still too high in first cost and maintenance cost. Both could be reduced. Considerable research is required.

Adsorption. This is the veteran gas air conditioning system—Silica gel and Kathabar—known to the gas industry since the early 30's. Has since been abandoned for residential air conditioning due to very low efficiency. This cycle is being reinvestigated in view of contemporary adsorption compounds which hold some promise.

Thermo-Electric Couples, Hilsch Tube, Azeotropes, Bush Pump, etc. These are other methods of producing cold by heat. Some of them are known to be inefficient thermodynamically; others are in "the blue-sky" stage.

alizable air conditioning systems are schematically represented and briefly described. A preliminary comparison of these systems is shown in tabular form below. It is clear from this that we need more research and an accelerated rate of development.

Turning now to 1955, the current status of our research program, which is necessarily somewhat fluid, is tabulated on the facing page. New research proposals are being studied while the projects shown by this table are being conducted.

Very noteworthy, recently, is the reawakening of determination among several manufacturers, to speed up their individual development of gas air conditioning equipment. Examples are: the energetic work done on packaged engine-compressor units, the research on absorption machines and the exploration of more distant objectives such as jet, double-loop and adsorption cycles.

Abroad also, there is a measure of significant research and invention related to gas air conditioning. We keep in touch with that to the extent feasible with our limited facilities.

Competition is far ahead. From now on, the A. G. A. air conditioning program will have to *snowball;* in fact it must be the principal concern of the gas industry for several years to come.

1954 PROGRAM

A PRELIMINARY COMPARISON OF VARIOUS AC SYSTEMS AND CYCLES

SYSTEM DESCRIPTION	DEGREE OF DEVELOPMENT	ESTIMATED RATIO GAS TO CONVENTIONAL ELECTRIC EFFICIENCY	OPERATING COST	FIRST COST	MAINTENANCE AND CONVENIENCE FEATURES	TOTAL POINTS	RELATIVE POSITION
CONVENTIONAL ELECTRIC	1	—	3	1	1	6	A
GAS INTERNAL COMBUSTION Sealed free piston-compressor (position becomes "A" as degree of development advances)	3	(1:3)	1	1	2	7	B
GAS INTERNAL COMBUSTION Crank shaft engine compressor	2	(1:4)	1	2	3	8	B
GAS ABSORPTION (position moves to "A" as degree of development and maintenance features improve)	2	(1:6)	2	2	2	8	B
GAS ENERGIZED JET SYSTEM	3	(1:7)	3	1	2	9	C
GAS ADSORPTION (plus resaturation)	2	(1:12)	4	2	3	11	C
GAS DOUBLE LOOP Boiler-expander-compressor (position moves to "B" as degree of development advances)	4	(1:4)	1	2	3	10	C
GAS EXTERNAL COMBUSTION Sterling-Philips	3	(1:4)	1	4	3	11	C
GAS TURBINE (low HP)	4	(1:10)	4	4	4	16	D
MISCELLANEOUS "blue-sky" (Hilsch tube, Bush pump, azeotropes, etc.)	—	—	—	—	—	?	D

Operating cost based on assumed "average" of 7.5¢ per therm for gas and 1.7¢ per kwh for electricity.

1955 A. G. A. PROGRAM

APPROXIMATE COST OF 1954 PROGRAM — $ 40,000
ESTIMATED COST OF 1955 PROGRAM — $300,000
(EXPENDITURES BY MANUFACTURERS ARE NOT INCLUDED)
As result of 1954 studies, the following 14 projects are under way or authorized

TYPE OF SYSTEM	SPONSOR	RESEARCH AGENCY	NATURE OF RESEARCH
MECHANICAL DRIVE	A. G. A.	BATTELLE	DESIGN AND DEVELOPMENT OF EXPERIMENTAL MODEL
CRANK SHAFT ENGINE STUDY	A. G. A.	BATTELLE	STUDY OF DESIRABLE DESIGN AND SPECIFICATIONS
CRANK SHAFT ENGINE STUDY	MANUFACTURERS	——	DEVELOPMENT OF COMMERCIALLY FINISHED PRODUCT
DOUBLE LOOP	A. G. A.	BATTELLE	DESIGN AND DEVELOPMENT OF EXPERIMENTAL MODEL
DOUBLE LOOP	MANUFACTURERS	——	DETAIL NOT REVEALED
JET FLUIDS	MANUFACTURER	A. D. LITTLE	STUDY OF COMBINATION OF MOTIVE AND REFRIGERANT FLUIDS
ADSORPTION	MANUFACTURER	I.G.T.	EVALUATION OF NEW COMPOUNDS
ABSORPTION	MANUFACTURERS	——	DESIGN OF PROTOTYPE UNIT
ABSORPTION	A. G. A.	I.G.T.	CRITICAL SURVEY AND THERMODYNAMIC STUDY
ABSORPTION	A. G. A.	JOHNS HOPKINS	REVIEW OF THERMODYNAMIC FUNDAMENTALS
ABSORPTION	A. G. A.	I.G.T.	CORROSION STUDIES
ABSORPTION	A. G. A.	A. G. A. LAB.	INVESTIGATION OF INTERMITTENT NOISES
AZEOTROPIC STUDY	A. G. A.	BATTELLE	PAPER STUDY
EXTERNAL COMBUSTION	A. G. A.	BATTELLE (PENDING)	INVESTIGATION

33 Coleman gas AC units being field tested

Twenty-eight utility companies are cooperating with The Coleman Co. Inc., Wichita, Kan., in development of its new residential gas-air conditioning unit. These gas companies are now running field tests on 33 gas motor units. The test program is expected to produce data that will permit final modification of the model for marketing in 1956.

Sheldon Coleman, company president and general manager, explained that the test units have been operating on a normal air conditioning load during the summer. He said that controlled false loading will extend the period of test operation after the cooling season ends.

With most of the test units, he said, the aim is to achieve a full 2,000-hour season of operation. This will test dependability, one of the company's main design specifications. The unit is intended to operate without servicing for 2,000 hours, equivalent to a full cooling season in the parts of the U. S. where the conditions under which air-conditioning equipment must operate are the most severe.

This is the second cooling season in which utilities have aided Coleman in field test work. Nineteen experimental units were on test last year.

Major components of the unit now being tested are an air-cooled motor designed to operate on natural, manufactured, mixed, or LP gases, a refrigeration compressor directly connected to the motor, an evaporative condensing unit with pump and hydraulic slingers, a new-style liquid chiller, a liquid-circulating pump, 110-volt AC starter, muffler, oil reservoir, and especially designed controls.

The refrigeration system is completely factory assembled. Ordinary plumbing lines carry the chilled liquid from the remotely located gas unit to a cooling coil mounted above or beside a standard forced warm-air furnace.

The utilities engaged in field testing are among those that volunteered to purchase units from Coleman and test them under Coleman's direction in order to advance the date of production for sale. Mr. Coleman credits utility cooperation with the gain of a full year in development time.

Current testing by utilities was preceded by a conference of utility executives in Wichita in April and a conference of utility engineers at the Coleman plant in May.

In addition to the 33 units in the hands of utility companies, The Coleman Company itself is testing five units and D. W. Onan and Sons, manufacturer of

(Continued on next page)

the special gas motor used, is testing one.

Half of the 33 utility test models are of three-ton capacity and half are five-ton. Utilities doing the testing are:

Arkansas Louisiana Gas Co., Little Rock, Ark.; Arkansas Western Gas Co., Fayetteville, Ark.; Atlanta Gas Light Co., Atlanta (two units); Baltimore Gas and Electric Co., Baltimore (two units); Boston Consolidated Gas Co., Boston; Brooklyn Union Gas Co., Brooklyn (two units); East Ohio Gas Co., Cleveland; Gas Light Company of Columbus, Columbus, Ga.; Gas Service Co., Kansas City, Mo.; Houston Natural Gas Co., Houston.

Laclede Gas Co., St. Louis; Lone Star Gas Co., Dallas (two units); Mississippi Valley Gas Co., Jackson, Miss.; Nashville Gas Co., Nashville; New Jersey Natural Gas Co., Asbury Park, N. J.; Northern Illinois Gas Co., Bellwood, Ill.; Northern Indiana Public Service Co., Gary, Ind.; Ohio Fuel Gas Co., Columbus; Oklahoma Natural Gas Co., Tulsa; Peoples Gas Light and Coke Co., Chicago.

Pioneer Natural Gas Co., Lubbock, Texas; Savannah Gas Co., Savannah, Ga.; Southern California Gas Co., Los Angeles; Southern Union Gas Co., Dallas; United Fuel Gas Co., Charleston, W. Va.; United Gas Corp., Houston (two units); United Gas Corp., Shreveport, La.; Washington Gas Light Co., Washington, D. C.

Visitors from abroad arriving for Sixth IGU Conference

THE GAS UTILITY companies of the United States will be hosts to nearly 200 visitors from abroad, including wives of more than 50 foreign gas utility executives who will visit America to attend the Sixth Annual Conference of the International Gas Union at the Hotel New Yorker, New York City, on September 25-30, 1955. This marks the first time this international organization, comprised of representatives of national gas associations from seventeen foreign countries, has met in the U. S.

Robert W. Hendee, former president of the American Gas Association and former president of Colorado Interstate Gas Co., Colorado Springs, Colo., is currently president of the International Gas Union. He has been assisted in planning the conference by honorary presidents, A. Baril of Paris, H. Müller of Munich and M. Brabant of Brussels.

Mr. Hendee, in a statement to the gas trade press, acknowledges with great appreciation, the many contributions of time, man-power and dollars, that have been made by gas utilities throughout the nation to assure the success of the business and social entertainment functions held for these distinguished visitors from Germany, Belgium, France, Italy, Canada, Denmark, Saar, Norway, Spain, Switzerland, Sweden, England, Japan, Australia and Netherlands. He urges active participation on the part of every gas company in the U.S., in serving as host to our neighbors from across both oceans.

A reception for delegates will be held Sunday, September 25. On Monday, a boat trip around Manhattan Island, a meeting of the International Gas Union Council and a dinner for Council members are scheduled. Formal greetings will be extended to delegates on Tuesday morning by F. M. Banks, president, Southern California Gas Co., and president, A. G. A. on behalf of the U.S. host companies. R. H. Touwaide, Brussels, general secretary of the Union, also will address delegates. E. Carl Sorby, vice-president, George D. Roper Corp., Rockford, Ill., will deliver the opening address Tuesday. Separate meetings will be devoted to transmission and distribution and to gas production Tuesday afternoon. A reception will be held Tuesday evening.

Utilization and gas production will be topics at Wednesday's meeting. The Consolidated Edison Company will sponsor a noon luncheon for delegates. A visit to the plant of The Brooklyn Union Gas Company and a formal banquet and entertainment comprise the remainder of the Wednesday program.

Educational subjects, reports on requirements for international standards for gas appliances and on gas air conditioning will make up Thursday's program. Col. W. F. Rockwell, Jr., president, Rockwell Manufacturing Co., Pittsburgh, will give a formal address. Thursday afternoon will be devoted to a visit to the United Nations. On Friday, a field trip to the Harrison (N. J.) plant of the Public Service Electric and Gas Company is scheduled.

Considerable interest has been shown on the part of visiting delegates in the list of suggested tours of the U.S. and Canada that can be taken before and after the conference. One suggested tour covers Philadelphia and Washington, with visits to the Philadelphia Gas Works and Caloric Appliance Corp. in Philadelphia and Washington Gas Light Co. in Washington.

Another suggested trip covers Buffalo and Niagara Falls. A third tour offers visits to Niagara Falls, Cleveland, Chicago, Pittsburgh and Washington. Here delegates would visit the A. G. A. Laboratories, the East Ohio Gas Company, in Cleveland, the Institute of Gas Technology and The Peoples Gas Light & Coke Company's appliance showrooms and gas museum in Chicago; a steel mill coke oven plant, and a storage field in Pittsburgh; with a tour of the nation's capitol and visit to Washington Gas Light Co., before returning to New York.

Other suggested tours for the foreign visitors cover such points of interest as Salt Lake City, Sun Valley, Portland, Oregon; Seattle, Washington; San Francisco, Yosemite National Park, Los Angeles, Grand Canyon, Houston and New Orleans. Also a trip has been arranged covering Niagara Falls, Toronto and Montreal for visitors wishing to see Canada.

Considerable expenditures of time and money have been undertaken by the committee on arrangements headed by E. W. Doebler, president, Long Island Lighting Company, in the preparation of the program, the entertainment features and in the advance printing of all papers to be presented during the three days of meetings. Sets of these papers will be available at A. G. A. Headquarters in New York at $20 per set. Registration fees for gas men in the U.S. will be $25. The conference will be open to all members of the gas industry from abroad without charge.

The entire gas industry in the U.S. is earnestly requested by President Hendee and his committee to make this first visit of the foreign members of the International Gas Union to our country a most memorable one. This requires the cooperation of all our gas companies, whether they are to act as special hosts to delegates visiting their cities, or whether they can contribute as members of the nation's sixth largest industry, to the success of the Sixth Annual Conference of the International Gas Union.

'American Builder' ad section promotes gas appliances

a PAR activity

GAS AND GAS EQUIPMENT advertising will achieve tremendous reader impact in a special 50-page advertising section in this month's issue of *American Builder*. The architect-builder portion of the magazine will stress the benefits of residential gas appliances with eight consecutive pages of American Gas Association advertising, and over forty pages of advertisements by individual gas equipment and related manufacturers, coordinated by the PAR Plan.

An extensive editorial feature written by a leading equipment authority will demonstrate methods of installing and utilizing gas appliances to best advantage. The editorial section will highlight all-gas homes in time for National Home Week, September 10-18.

Reprints of the entire editorial and advertising section will be available to utility companies, through A. G. A., for distribution to architects, builders, and consumers. The reprinted section will be sent to over 700 builders, and to schools and colleges offering light construction courses.

A look at methods used to present the facts about gas safety to opinion-forming groups

Safety—natural gas' big story

Mr. Westmoreland (2nd from left) participating in a panel discussion during recent Pacific Coast Gas Industry PR Conference. Other panel members are (l. to r.) R. M. Brigham, Springfield, Mass.; N. H. Gellert, Jr., Seattle, moderator; C. S. Hazel, Philadelphia; and W. L. Shomaker, Omaha

By C. C. WESTMORELAND

Southern California Gas Company
Los Angeles, California

The administrative officials of our city, county and state governments are an important segment of our many "publics." What they think of us, what "image" comes to their mind when the name of one of our companies, or our industry is mentioned, influences what they recommend to city councils or boards of county supervisors and what they say to the general public and to that very important opinion-forming group, the newspapers.

The safety of gas is one of the fundamental precepts on which our industry is based. Here is a review of some of the methods that have been used effectively in getting the gas safety story over to some of these opinion-forming groups.

We cannot expect these officials to do our public relations job for us. We can, however, inform them about our business and show them that we conduct ourselves in a manner consistent with the welfare of the community so that their opinions and statements can be based on facts.

Let us consider first the group responsible for the construction, maintenance and use of our public streets—the city and county engineers, street and road superintendents. Our operations, to these people, could well be considered just another pick-up-and-delivery business. We pick up a product at the oil field or at the city limits and deliver it to an appliance.

The important difference is that we must repair and maintain our means of transportation in the streets rather than in a garage. This can mean a headache to the city engineer in the form of complaints to the council if the work is not carefully planned with the public's convenience in mind and coordinated with the related city departments.

Personal calls or letters telling abutting property owners why the job is necessary, what will be done to minimize their inconvenience and whom to contact for information or help, keep minor irritations from becoming official complaints that have a way of growing to major issues as they are routed from office to office in the city hall.

The need for proper coordination of underground work is very real. Pipeline accidents that cannot be directly attributed to human thoughtlessness or ignorance are already a rarity. The new safety requirements of the recently completed Section 8 of ASA B31.1 will further improve the already good record of the industry. This will further empha-

Presented at the Pacific Coast Gas Industry Public Relations Conference, Seattle, Wash., June 20-21, 1955.

size the importance of controlling accidents of the man-made variety.

P. G. Behr of the Portland Gas & Coke Co., in a recent study revealed that in one year his company experienced 268 cases of pipeline damage, many of which were, no doubt, potential accidents. City officials who control street excavations are in an excellent position to prevent many such accidents from happening, but they must have our full cooperation.

We must be willing to supply drawings of our underground system and see that they are kept up to date. We must be ready to respond to requests to locate our facilities ahead of the construction work of others, even if the need arises when we *are* busy. Helping others avoid damage to our facilities must be considered a regular part of doing business, not a favor granted when it's convenient.

Underground coordination

Back in 1926 some men of vision saw the need of such coordination in our town and established the Los Angeles Substructure Committee. All the utilities and public agencies who work in the streets meet once a month and discuss projects of mutual interest. A representative of the city engineer's office acts as chairman. Work is planned to minimize the possibility of accidents and inconvenience to the public.

Although the group has no official status, proposed ordinances or other regulations governing substructure work are usually referred to the committee for a recommendation. Five other such organizations have come into being in recent years and all of them are proving that group planning pays off in benefits to the public, the municipality and the utilities.

The ultimate of what we should try to achieve is well put in the statement of one of our career public employees, Milton Offner, past president of the American Public Works Association and secretary to the City of Los Angeles Board of Public Works. He said:

"Things have changed in the past few decades. Years ago the public servant was looked upon as a grafter, or a power-hungry socialist, or worse. Utilities were seen as grasping, public-be-damned monopolies. Today it's obvious that they are two servants of the same boss—the public. If we make a utility unnecessarily spend a dime, it becomes a part of the rates allowed to that utility by the Public Utilities Commission and the taxpayers pay for it. We owe the same duties to the public that the gas utility does—to clear the way for the best service at the least cost."

Fire departments make up another segment of local government that is important to us. With some groups, considerable effort is necessary to stimulate enough interest to give us the opportunity to tell the gas safety story, but not with firemen. They are interested in anything that burns and are probably the most dedicated of any public agency we contact.

Your fire departments here in the Northwest are no exception. About a year ago, a fire chief from one of your smaller towns wrote saying that he expected natural gas to be brought to his city and asked for material he could use in training his men. In April of this year, Fire Marshal F. W. Schoonover of Yakima, Wash., wrote our Chief Alderson requesting information about regulations in Los Angeles on the distribution of natural gas.

Earlier in the year we helped our local fire department answer a lengthy questionnaire put out by the International Association of Fire Chiefs on fuel gas fires and leaks. One of our friends in the fire service mentioned that in a recent fire rating survey by the NBFU the investigator asked about coordination with the gas utility.

Yes, the interest is there and what a story we have to tell. Natural gas' narrow explosive range, high ignition temperature, low specific gravity, and rapid rate of diffusion are all items of particular interest to the fire services. Even the fact that natural gas is odorless can be explained as actually being an advantage because it allows us to impart a consistent odor maintained at a level to assure detection at approximately one-fourth the concentration necessary to support combustion.

As one wag put it, we use odorant for the same purpose as women use perfume —to attract attention—except ours is with preventive rather than causative intent. With all these things in our favor it's no wonder that NFPA statistics consistently show gas far down the list of factors responsible for fires.

A few years ago we were asked by one of our fire departments for a program to tell firemen what they should know about natural gas and what they could do to help us bring emergency incidents involving gas under control. We did. The program included such things as the physical properties of natural gas, where to look for valves that can be operated by firemen, what valves should *not* be operated by firemen, and why the quickest way to shut down a line may not be the best way to bring a leak under control.

News of the program spread from city to city until it had been given an even 100 times to fire departments throughout Southern California. It was so well received that the Los Angeles Fire Department is putting it on film under the title, "Emergency Control of Natural Gas." It won't be available until fall, but here are a few quotes from the script:

Fireman's view

"Natural gas is a good neighbor—a most important contribution to our modern way of life. Natural gas, like any other flammable or explosive material is perfectly safe when confined in closed, properly supervised systems. When burned in approved, well maintained appliances, it offers little or no hazard. Nevertheless, when tremendous quantities of flammable gas are distributed to thousands of customers throughout a large city, accidents are inevitable. In almost every instance they are due to carelessness, unsafe or unlawful practices. Such emergencies must be anticipated and control procedures worked out in advance."

Such factual, straightforward statements can only stem from fire departments understanding what we do to make the distribution and use of gas safe.

Another important group are the building and plumbing officials. Most West Coast gas companies admit that some degree of control must be exercised over the installation of piping and appliances. We feel, too, that the control is properly a function of local government. If we expect that control to be effective, we must see that those in authority have the information needed to do a good job. It's essential, therefore, for us to let them know of our plans when major changes affecting their responsibilities are in the making.

Here, again, the superior characteristics of natural gas provide a story well worth telling. Houseline installation and inspection can be greatly simplified. The absence of hydrate makes grading and

drips unnecessary. In cold climates there is no need to protect exposed gas lines from freezing—it's only necessary to see that they are bottle tight and large enough—and in the matter of sizing houselines, the higher Btu content of natural gas often means that smaller lines than those used with manufactured gas will do the job.

Most building officials appreciate being given such information so that they can tell the building trades and the general public. Helping the building officials make such announcements improves their prestige and puts them in a better position to do the enforcement job we expect of them.

Finally, don't overlook the health departments. As guardians of the public health, they have a definite interest in the operation of domestic appliances and the characteristics of the fuel itself. When natural gas was brought to Los Angeles about 1928, it was assumed that everyone, particularly public officials, knew that natural gas could not be absorbed into the blood and is, therefore, non-toxic.

This supposedly well-known fact was not fully understood until after the University of Southern California Medical School conducted extensive tests and published their findings in the *California and Western Medicine* magazine in July of 1937. That report was summarized as follows:

"Natural gas, as supplied to domestic consumers in Los Angeles, is without demonstrable effect on human beings in concentrations of 25 per cent. Animals kept in 25 per cent gas for 30 days re-

(Continued on page 28)

Seattle PR conference paves way for conversion

Arrival of natural gas in the Pacific Northwest next year will bring tremendous opportunities and also stern challenges, delegates to the Pacific Coast Gas Industry Public Relations Conference, held recently in Seattle, were informed. One hundred and sixty-four persons attended the workshop-type conference which was sponsored jointly by Pacific Coast Gas Association, American Gas Association, Gas Appliance Manufacturers Association, Independent Natural Gas Association of America, and the National Council for LP-Gas Promotion.

Chairman B. T. Poor, vice-president and general manager, Washington Gas and Electric Co., set the theme by emphasizing the need for effective public relations planning before natural gas arrives.

W. C. Mainwaring, vice-president and assistant to the president, British Columbia Electric Co., told the group that natural gas would enable them to launch a powerful sales offensive and "raise the gas industry to its rightful competitive place."

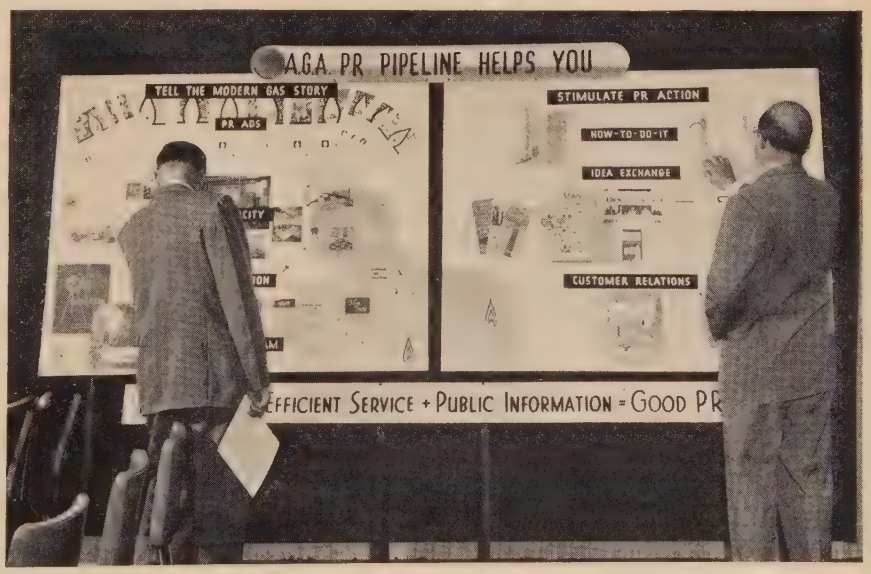
Conversion will be a huge job, he said, but companies in the Northwest have two big advantages: the public is receptive to the idea of natural gas and it is a truly wonderful product. He urged his audience to employ every possible means of telling the story of natural gas and modern gas service.

The story of successful gas promotions in the heart of the Tennessee Valley Authority territory was depicted by S. V. O'Lenic, president, Chattanooga Gas Company.

T. T. Arden, president of GAMA,

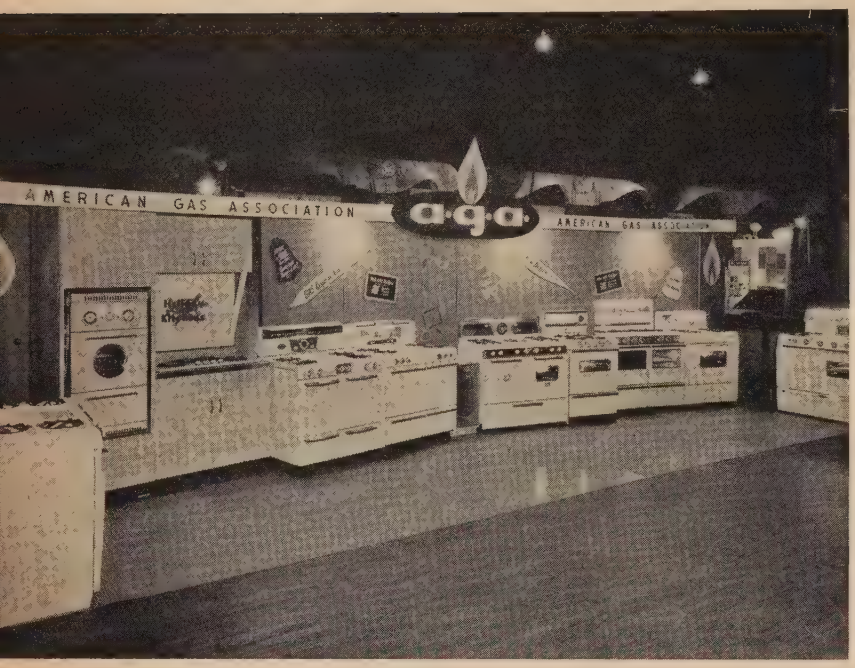
(Continued on page 25)

B. T. Poor (standing) program chairman of the Pacific Coast Gas Industry Public Relations Conference held in Seattle, discussing Portland Gas & Coke Company's new booklet "Progress with Natural Gas," with conference speakers (left to right) W. C. Mainwaring, Vancouver, B. C.; T. T. Arden, president of GAMA, and S. V. O'Lenic, Chattanooga, Tennessee



This PR display by A. G. A., one of five national and regional gas industry groups participating in Seattle conference, dramatized how exchange of information helps natural gas companies develop good PR through efficient service and effective public information

Twelve A. G. A. New Freedom Gas Kitchens and Laundries, many of them featured in national magazines, attracted large audiences at 46th Annual Home Economics Association convention



Variety in styling caught the attention of convention-going home economists who visited A. G. A. exhibit featuring modern ranges produced by nine participating manufacturers

Pastel hues dramatize functional St. Charles kitchen and laundry, winner of American Institute of Architects citation, designed by "Household" home equipment editor for A. G. A.

Gas takes top role at Home Economics show

Exhibits played an important role at the annual convention of the American Home Economics Association held in Minneapolis, June 28-July 1. Of the 16 model kitchens viewed by 4,000 home economics teachers, extension members and business home economists, 12 were New Freedom Gas Kitchens and Laundries—leaving only four for electric competition!

In addition to the New Freedom Gas Kitchens and Laundries, the American Gas Association exhibit featured 1955 developments in modern gas ranges. Each of the nine gas range manufacturers exhibiting at the show provided a range for the A. G. A. display.

As a result, visitors were able to view in one unified exhibit a modern picture of gas ranges of different dimensions,

Chinese alphabet in formalized wallpaper pattern presents vivid background for kitchen containing gas refrigerator, washer-dryer, oven, water heater. Built-in range, cabinets, are American Kitchens products

Home service directors of utilities throughout the country assumed hostess roles during the five-day convention. They presented visitors to the diplays a paper shopping bag with the message "Be Smart Go Gas"

varieties of oven and broiler sizes, rotisseries, built-in units, controls for top burners and many of the new low input burners.

Gas industry home service directors helped to staff the exhibit and were able to demonstrate the advantages of the new ranges. They also provided visitors with a paper shopping bag decorated with a blue flame and bearing on each side the slogan, "BE Smart—Go Gas."

Robert F. Calrow, advertising and display manager, Minneapolis Gas Co., cooperated with A. G. A. in designing the display's background.

The first kitchen ever to win the top award at American Institute of Architects' convention and show was among the 12 New Freedom Gas Kitchens and Laundries on view at the American Home Economics Association convention.

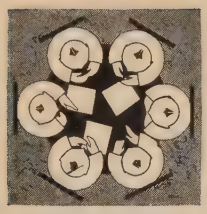
The citation reads: "The American Institute of Architects takes pleasure in awarding to American Gas Association this citation for the outstanding attractiveness of its booth display at the product exhibition at the above convention."

The kitchen featured St. Charles kitchen units, ice blue with cocoa Formica counters, built-in top burners and oven by Florence Stove Co., and built-in refrigeration by Servel, Inc. All appliances were either in ice blue or stainless steel. When the kitchen was moved from the AIA convention (also in Minneapolis) a new decorating scheme was used.

The other 11 New Freedom Gas Kitchens and Laundries on display for the home economists were designed by leading women's magazines and have or will be given extensive editorial coverage. The kitchens ranged in size from a compact 8 by 10 foot builders' model to an immense 20 by 20 foot "homemaking department."

A number of the kitchens will be on view again at the American Gas Association—Pacific Coast Gas Association Annual Convention next month in Los Angeles.

Among the gas range manufacturers cooperating in the A. G. A. exhibit were Caloric Appliance Corp., Cribben and Sexton Co., Florence Stove Co., Magic Chef, Inc., Geo. D. Roper Corp., Tappan Stove Co., Western-Holly Appliance Corp. Norge Division, Borg-Warner Corp., and RCA Appliance Corporation.



Industrial relations round-table

Prepared by
A. G. A. Personnel Committee

Edited by W. T. Simmons

Assistant to the Personnel Manager
Philadelphia Electric Company

● **Salvage more than nuts and bolts**—While you are salvaging miscellaneous nuts, bolts, rivets, screws, and other mixed hardware left over from completed jobs or caught by the sweeper's broom, give a hand to the disabled or physically handicapped.

Convair Division, General Dynamics Corp., San Diego, Calif., subcontracts 5,000 pounds of salvage material each month to the local Disabled American Veterans organization. This sorting job, not economical for the plant to handle, provides useful, profitable work for 40 disabled veterans. This arrangement saves Convair money, too.

● **Tensed up? Relax**—A disciplined nervous and emotional system is necessary for success in modern business. The rise to the top in our business world is really a survival of the fittest. Unhappily, we can't remove the tensions of our times. But at least we can recognize the fact that these stresses have physiological implications. Excessive emotional and nervous stresses and strains can so affect the nervous system that changes in body organs result. Hyperacidity, stomach ulcers, colitis, high blood pressure, and arthritis—to mention only a few organic disorders—can be caused or aggravated by nervous tension. Heart attacks, especially among younger men, may result from persistent nervous fatigue. You don't have to have a stomach ulcer or a heart attack to prove you're a success. Some men try too hard to be successful. Why settle for 50 years when you could live 100?

● **Recreation ammunition**—Do you want to be convinced about the value of an employee recreation program? If so, consider these 11 good arguments: (1) breaks down barriers, (2) relieves job monotony, (3) builds friendship, (4) helps cut absenteeism, (5) improves worker attitudes, (6) reaches employee's family, (7) keeps contact with retired workers, (8) spots leadership ability, (9) strengthens public relations, (10) improves community relations, and, (11) helps give a company the reputation of being a good place to work.

We found this ammunition in a booklet distributed by the National Industrial Recreation Association, 203 N. Wabash, Chicago 1. For a free copy write to that address.

● **Booklet of the month**—DuPont's booklet, *The Story of Employment Opportunities,* is full of economic information some people find useful. There is a dramatic section entitled "Business Biology." It points out how developments in one field spawn employment in others. Ask the DuPont Public Relations Department, Wilmington 98, Del., for a copy.

● **Arbitration decisions**—*Physical examination sustained by arbiter*—An employee who brought his physical condition to the attention of management by refusing a work assignment on physical grounds made his health a legitimate company concern, according to Arbiter Thomas Begley. The arbiter sustains management in refusing to transfer the worker to a job his seniority and ability would entitle him to hold, unless he can pass physical standards set up by the company's doctor.

CIO's Rubber Workers brought the grievance over a transfer to an elevator operator job at the Republic Rubber Division of Lee Rubber and Tire Corporation. The employee's trouble is mainly high blood pressure, and he wanted to make the transfer, even though it entailed a cut in pay, because the elevator job is easier than his current one. But the company says it isn't safe to have him operate the elevator unless his blood pressure decreases. The company doctor set the level he thought safe, and management said it would transfer the grievant as soon as his blood pressure had remained at this reading for three months.

Rejecting union arguments, Mr. Begley says the employee's own act gave the employer occasion to set physical employment standards he must meet, and he notes the company's duty to keep employees safe by refusing to move the grievant into a job that might be hazardous to others. He also says the employer may put sole trust in its own doctor, in the absence of evidence that the physician acted discriminatorily.

Job content and reevaluation—An arbitrator has ruled that where a contract provides for changes in job classification only when the job content is altered, a request for reclassification of a job to a higher grade, on the ground that the various rating factors of the job are rated too low, is, in the absence of any evidence that a change in job content has occurred, *not* arbitrable. (See *The Hotpoint Co.* and *Auto Workers, CIO;* Otto J. Baab, arbitrator; Grievances 580-980, 580-981 and 402-875; October 5, 1954.)

Non-bidder's assignment to vacancy—An arbitrator has ruled that in the absence of specific contractural language to the contrary, an employer may assign, to a posted job vacancy, a qualified employee who did not bid for the job in preference to an employee, senior to him, who did bid for the job and who did not meet the job requirements. (See *Jersey Central Power & Light Company* and *IBEW;* AFL; Charles O. Gregory, arbitrator; January 15, 1955.)

● **NLRB rulings**—*False election propaganda*—False union propaganda may be so extreme and so misleading as to justify setting aside an election after a union victory, the National Labor Relations Board has held recently.

The Board ruled on objections filed by Gummed Products Co., Troy, Ohio, to an election won by CIO United Paper Workers. The company charged that about one week before the election the union distributed handbills listing the wage rates allegedly paid to employees represented by it at competing plants in nearby cities. The employer investigated and found that many of the listed rates were false, some of them exceeding the actual rates by as much as 57 cents per hour.

The company pointed this out in a letter to employees. The union responded with another handbill on the last day before the election asserting that the rates it had published were the correct ones provided in a new contract with the competing companies and that the employer was referring to old rates under previous contracts. The union won the election by a vote of 60 to 56.

The Board's investigation disclosed that the union had no new contract with the employer's competitors and accordingly that it had made totally false representations and statements on this point as well as in listing false rates for other plants.

The union contended that its conduct was permissible under the Board's general policy that "exaggerations, inaccuracies, partial truths, name-calling, and falsehoods, while not condoned, may be excused as legitimate propaganda, provided they are not so misleading as to prevent the exercise of a free choice by employees in the election of their bargaining representative."

The Board, however, felt that comparative wage data were of vital concern to the employees and that the union's "false statements of fact on the very eve of the election in the face of a direct contradiction by the employer, were entitled to greater than ordinary weight." It concluded that under these circumstances the union's conduct "exceeded the limits of legitimate propaganda and lowered the standards of campaigning to a level which impaired the free and untrammeled expression of choice by the employees." Accordingly the Board unanimously set aside the election.

What constitutes guard duties?—The National Labor Relations Board has ruled that any amount of time spent by employees in guard duties is sufficient to establish their status as guards for representation purposes. (See *Louis F. Dow Company* and *Building Service Employees, AFL;* Case No. 18-RC-2399; February 16, 1955).

Pakistani begins on-job training

A Pakistani student, the first of his native land to receive a formal education in natural gas engineering, will complete that education as a student engineer with the Columbia Gas System.

Mohammed Afzal Shiekh, 25, of Lahore, Pakistan, will finish his education about the same time the first gas line in the history of Pakistan is completed.

His practical education in gas engineering was assured after David R. Edwards, employee relations vice-president of the Columbia Gas System Service Corp., heard of Mr. Sheikh's desire to complete his gas engineering studies in America through the American Gas Association. Mr. Edwards arranged to place him with Binghamton Gas Works, Binghamton, N. Y., one of Columbia's distribution companies.

"I am so very grateful to all of you who are so kind to me in America," Mr. Shiekh said shortly after his ship docked in New York.

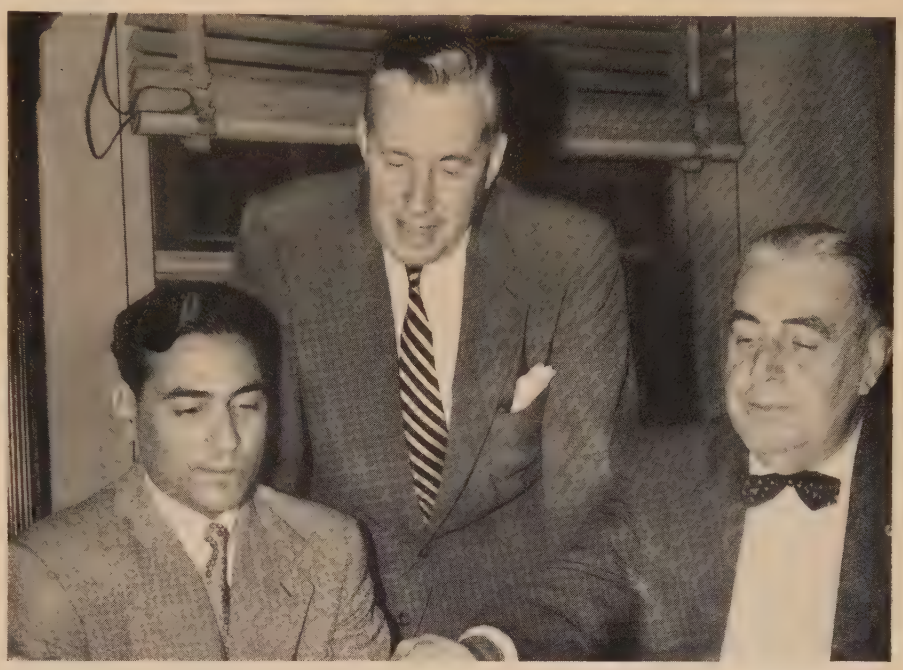
The son of a Lahore businessman, Mr. Shiekh was educated at Punjab University where he majored in physics and chemistry. His father then sent him to Westminster Technical College in London, England, where he studied gas engineering for two years.

He decided to study phases of the natural gas industry shortly after a gas field was discovered at Sui in Pakistan. Pakistan's first natural gas transmission line is now being completed from Sui to the country's capital, Karachi.

After his two years in the English college, Mr. Shiekh sought a way to continue his studies in America.

"I learned very much in England," he said, "but over there they produce only manufactured gas. I would like to study a natural gas system because that is the kind we will have in Pakistan."

He wrote to the Pakistani consul, who suggested that he write directly to the American Gas Association. J. W. West, Jr., then acting managing director of A. G. A., saw in Mr. Shiekh's letter a chance to further international relations between the United States and the country of Pakistan.



Pakistani student Mohammed Afzal Shiekh (l.) learns details of his forthcoming six-month junior engineer training program from D. R. Edwards, Columbia Gas employee relations vice-president, as C. S. Stackpole, A. G. A. managing director, looks on

A news story about Mr. Shiekh's desire to continue his practical education in the U. S. was carried in the A. G. A. MONTHLY and a notice of his availability was inserted in the magazine's "Personnel Service" department. When Columbia became interested, A. G. A. staff members aided in establishing contact with Mr. Shiekh in England.

Mr. Shiekh ran into a good deal of red tape which forced him to cancel one passage before the way was cleared for his trip to America. He finally received permission to come here after Columbia filed a petition with the U. S. Department of Justice for permission to "import" Mr. Shiekh, and guaranteed that he would have a job.

For six months, the soft-spoken youth will learn the gas business from the ground up. Binghamton was chosen because it is a large city supplied by a long-distance transmission line—just as Karachi will be supplied through a major pipeline artery.

Mr. Shiekh hopes to study all phases of the gas industry, but wants to concentrate most on city distribution phases. Karachi has never had natural gas for cooking or heating.

"I think it will be a tremendous job just to educate my people in the uses of natural gas," Mr. Shiekh said.

While here he will participate in the regular Columbia Engineer Training Program. Among other things, he will learn to read meters and make regular calls with the gas company's servicemen.

Mr. Shiekh is called "Gullah" by his family and close friends in Pakistan. He says it is a meaningless nickname that has stuck with him. He has been away from home for more than two years.

At times he gets a little homesick, but not often any more. He has four brothers and five sisters, and one of his brothers wants to study at the University of Pennsylvania some time this year.

Facts and Figures

Prepared by A. G. A. Bureau of Statistics

Shipments of 216,500 automatic gas water heaters during June marked the sixth consecutive month that gas water heater shipments topped the 200,000 unit mark. The shipments in June were 4.7 per cent greater than in June of last year. During the first six months of 1955 shipments of gas water heaters totaled 1,393,500, up 23.3 per cent over the same period a year ago.

Gas range shipments during June were 182,000 units, 4.4 per cent greater than the 174,300 units shipped during June 1954. Shipments of gas ranges in the first half of this year aggregated 1,095,800 units, up 10.8 per cent over the 988,600 units shipped during the first six months of 1954. June shipments of 76,200 gas-fired furnaces were 33.2 per cent greater than shipments made in June of 1954. New housing starts during June were estimated at 129,000 units, up 10.7 per cent over the same month a year ago. It is estimated that 1.3 million housing starts will be made during 1955.

Shipments of 17,000 automatic gas dryers and 53,600 electric dryers during June were 68.2 and 165.6 per cent higher, respectively, than shipments in June, 1954. During the first half of this year, automatic gas dryer shipments totaled 135,800 units, up 64.9 per cent while electric dryer shipments in this same period aggregated 396,100 units, up 87.2 per cent over the first six months of 1954.

Gas appliance data relate to manufacturers' shipments by the entire industry compiled by the Gas Appliance Manufacturers Association. Industry-wide electric appliance statistics are based on data compiled by the National Electric Manufacturers Association and are reprinted by GAMA in its releases. Data on both gas and electric dryer shipments are released regularly by the American Home

(Continued on page 28)

SALES OF GAS AND ELECTRIC RESIDENTIAL APPLIANCES DURING JUNE, 1955

(WITH PERCENT CHANGES FROM THE CORRESPONDING PERIOD OF THE PRIOR YEAR)

	June		May	
	Units	Percent Changes	Units	Percent Changes
RANGES				
Gas	182,000	+ 4.4	175,100	+ 6.9
Electric	n.a.	n.a.	124,900	+32.2
WATER HEATERS				
Gas	216,500	+ 4.7	229,400	+17.3
Electric	n.a.	n.a.	83,500	+19.6
GAS HEATING				
Furnaces	76,200	+ 33.2	66,900	+34.6
Boilers	7,500	+ 11.9	5,600	—13.8
Conversion Burners	16,100	— 18.3	12,300	—45.3
DRYERS				
Gas	17,000	+ 68.2	14,300	+60.7
Electric	53,600	+165.6	34,900	+98.1

PERTINENT BUSINESS INDICATORS, JUNE

(WITH PERCENT CHANGES FROM THE CORRESPONDING PERIOD OF THE PRIOR YEAR)

	June		Percent	May		Percent
	1955	1954	Change	1955	1954	Change
Industrial activity (1947-49 = 100)	139	124	+12.1	138	125	+10.4
Consumer prices (1947-49 = 100)	114.4	115.1	— 0.6	114.2	115.0	— 0.7
Housing starts, Non-farm (thousands)	129.0	116.5	+10.7	132.0	108.5	+21.7
New private construction expenditures ($ Million)	2,655	2,273	+16.8	2,496	2,116	+18.0
Construction costs (1947-49 = 100)	145.7	138.7	+ 5.0	144.8	137.3	+ 5.5

GAS SALES TO ULTIMATE CONSUMERS BY UTILITIES AND PIPELINES

(MILLIONS OF THERMS)

	1955	1954	Percent Change
Month of June			
All types of gas	4,441.8	4,238.6	+ 4.8
Natural Gas	4,218.5	4,011.7	+ 5.2
Other gases	223.3	226.9	— 1.6
Twelve Months Ending June 30, 1955			
All types of gas	63,996.1	58,980.6	+ 8.5
Natural Gas	60,579.0	55,742.5	+ 8.7
Other gases	3,417.1	3,238.1	+ 5.5
June Index of Utility Gas Sales (1947-49 = 100)	191.5	182.7	+ 4.8

Total gas industry income statement is on page 28.

See gas sales up 24% by 1958

By BUREAU OF STATISTICS
American Gas Association

Sales of gas by utilities and pipelines in 1958 will aggregate 76.3 billion therms, an increase of 24.3 per cent over actual sales of 61.4 billion therms in 1954. Supplies of gas from existing and planned facilities, to meet these increased requirements, will total 85.3 billion therms, equivalent to an advance of 20.1 per cent from the total supply of 71.0 billion therms available last year.

These data, together with related statistics on gas requirements, supplies, steel and other material needs of the industry, customer growth, and estimates of future construction expenditures are available in the American Gas Association report just published entitled "Gas Requirements and Supplies of the Gas Utility and Pipeline Industry."

This report represents a revision of the material published by the A. G. A. in each of the two prior years and provides comprehensive forecasts of national and regional statistics on an annual basis through 1958 and on the peak day through the 1958-59 heating season. As such, it reveals changes in anticipated requirements and supplies through 1957 from those supplied to A. G. A. in prior years, and carries the forecasts forward one year further into the future. Data shown in the report relate to the entire industry and are based upon replies to questionnaires from 148 gas companies, representing 84 per cent of industry sales.

The industry has been aware of the importance of such statistics, particularly those relating to the need for steel and other material requirements which provide an invaluable guide to suppliers of products so essential to the continued growth of the gas industry.

The data are also most useful in highlighting and locating the existence of possible shortages of gas and the need for remedial action, in determining the relative growth of market demand as a means of orienting marketing activities of appliance manufacturers, and in documenting the probable course of future industry growth for a variety of purposes.

Total peak day firm requirements for all sales and company use in 1958-59 will be 446.0 million therms while the presently indicated total supply for the same period will be 447.1 million therms. In the survey published last year a small net deficiency in supply was indicated for the peak day in 1957-58. No net deficiencies are reported in any of the years covered by the current survey, indicating that additional supply for the 1957-58 peak day has now been assured.

Heating sales to rise

Anticipated residential space heating requirements in 1958 will exceed those experienced in 1954 by 43 per cent and will represent nearly one-fourth of total annual demand of all customers of the industry in 1958. Residential space heating customers will aggregate 18.3 million in 1958, equivalent to a gain of 31 per cent in the number of households heated with gas when compared to the 1954 year-end totals. Peak day requirements for residential space heating are expected to increase 40 per cent during the four years covered in the forecast to a total of 233 million therms in the 1958-59 heating season.

The greatest relative post-war increases in demand and in customer acceptance of gas for househeating have occurred in northern areas. This reflects the tremendous pipeline expansion program making more gas available to the metropolitan centers of the North and the fact that a relatively high heating saturation has historically existed in the southern part of the country.

Residential base load consumption, on an annual basis, is expected to increase approximately 21 per cent between 1954 and 1958, while commercial and firm industrial consumption will advance 27 per cent and 23 per cent, respectively. The growth of the latter two categories may be influenced to some extent by a more substantial growth in heating requirements; however, no statistical distinction is possible between heating and other requirements of commercial and industrial users.

The average annual growth of more than five per cent in residential base load consumption undoubtedly reflects the effectiveness of gas heating in ensuring customer acceptance of other residential appliances, together with augmented and effective industry promotional efforts.

Sales of gas to interruptible customers are to range from 15.8 to 16.2 billion therms during the forecasted period. The absence of growth in such sales is accounted for by the ever-increasing utilization of underground storage facilities for meeting the peak day demands imposed by househeating requirements. Increasing use of these facilities permits fuller year-round utilization of pipeline capacities and more effective sales to consumers by distributing companies.

It is estimated that $187 million will be expended during the four forecast years on underground storage projects. Anticipated withdrawals during 1958 will aggregate 5.3 billion therms while on the 1958-59 peak day the expected underground storage withdrawals of 115 million therms will represent more than one-fourth of the total available supply of gas from all sources, for the entire industry.

To meet the increased demand for its service the industry will require 6.2 million tons of steel pipe during 1955-58. Of this amount 3.0 million tons will be in the form of pipe of 16-inch diameter and over. Pipe of this size is primarily used in the construction of pipelines to transport gas from field sources to market areas.

Additional details, including regional statistics, are available in the complete report which may be obtained from the Bureau of Statistics. One copy of this report has been forwarded, on a complimentary basis, to delegates of member companies.

Additional copies are available at a cost of $2.00 each.

1955 gas construction expenditures to top $1.3 million

By BUREAU OF STATISTICS

American Gas Association

The gas industry spent $1,055 million during 1954 on construction of new facilities and it is expected that 1955 expenditures will aggregate $1,385 million. This total will make 1955 the second highest year in terms of plant expansion in the history of the gas industry, surpassed only by the total of $1,462 million spent in 1951.

Transmission expenditures aggregated $394 million in 1954 and, reflecting the expected construction of several new long distance projects, are estimated at $725 million in 1955. Construction of distribution facilities, which totaled $423 million in 1954, are expected to rise to a new peak of $441 million in 1955.

During the four years 1955-58 the industry expects that new construction will aggregate $4.3 billion, 12 per cent less than the $4.9 billion spent during the 1951-54 period. These data are based on estimates of future construction expenditures through 1958 supplied to the A. G. A. Bureau of Statistics by individual utilities and pipelines throughout the nation, supplemented by staff estimates for companies to be newly formed during the period.

Past experience has indicated that estimates for the more remote future years are conservative since gas companies tend to underestimate anticipated construction expenditures when queried for more than two years ahead. Specific plans for probable new projects are not formulated so far in advance and, accordingly, related construction expenditures are excluded.

It seems likely, therefore, that actual expenditures for 1957 and 1958 will exceed the estimates on the accompanying table, with a corresponding increase in total construction expenditures during the four year period.

GAS UTILITY AND PIPELINE CONSTRUCTION EXPENDITURES
(MILLIONS)

Type of Gas and Plant Function	Actual 1954	Forecast 1955	1956	1957	1958	Total Forecast 1955-1958	Actual Total 1951-1954
NATURAL GAS—TOTAL	$ 946	$1,284	$1,133	$ 920	$ 696	$4,033	$4,537
Production and other storage	119	73	72	73	74	292	542
Transmission	389	720	577	402	183	1,882	2,422
Underground storage	42	74	47	32	34	187	171
Distribution	346	371	387	380	373	1,511	1,218
General	50	46	50	33	32	161	184
ALL OTHER TYPES OF GAS—TOTAL	109	101	72	54	55	282	396
Production and storage	20	19	13	11	13	56	76
Transmission	5	5	2	1	1	9	21
Distribution	77	70	51	39	37	197	274
General	7	7	6	3	4	20	25
TOTAL INDUSTRY—TOTAL	1,055	1,385	1,205	974	751	4,315	4,933
Production ond other storage	139	92	85	84	87	348	618
Transmission	394	725	579	403	184	1,891	2,443
Underground storage	42	74	47	32	34	187	171
Distribution	423	441	438	419	410	1,708	1,492
General	57	53	56	36	36	181	209

Information on past and anticipated construction expenditures, by quarters of the year, are supplied regularly to the Securities and Exchange Commission by gas utilities with securities in the hands of the public. Summaries of such data by SEC have been adjusted to provide an indication of quarterly construction expenditures by the entire gas industry for 1954 and 1955, and are shown below. (Similar estimates for 1952 and 1953 are available upon request.)

QUARTERLY GAS INDUSTRY CONSTRUCTION EXPENDITURES, 1954-1955
(MILLIONS OF DOLLARS)

Quarter	1954	1955
First	228	183
Second	300	393
Third	266	503
Fourth	261	306

Ninety per cent of total construction expenditures for 1954 was applicable to natural gas facilities while the corresponding percentage for 1955 is expected to be 93 per cent, and for the four year period 1955-58 it will equal 94 per cent. These increasing percentages reflect continuing conversions to natural gas, particularly in the Pacific Northwest, as well as the more rapid relative rate of growth of natural gas utilities and pipelines.

During 1954 the industry used a total of 1.8 million tons of steel, with approximately half of this amount representing pipe of 16 inches or larger diameter. This amount of steel is 15 per cent less than that used in 1953 when construction expenditures were significantly higher. In the six years beginning with 1949, gas utilities and pipelines have used a total of 12.8 million tons of steel.

The accompanying table provides an analysis of gas company construction expenditures, by type of gas and plant function, from 1954 through 1958.

Gas industry sales and revenues gain in first quarter

TOTAL OPERATING revenues of the gas utility and pipeline industry reached a new high of $4,842 million for the 12-month period ended March 31, 1955 the American Gas Association reports. This was a gain of 13.0 per cent over the $4,286 million in the same period a year ago. Net operating revenues climbed to $637 million, an 18.0 percent increase over the $540 million a year earlier. Net income rose from $409 million to $471 million, an increase of 15.2 percent.

Total taxes paid by the gas utility and pipeline industry during the period rose to $602 million from the $541 million during the same period a year ago. Total taxes, including federal income taxes, represented 12.4 percent of operating revenues for the gas industry in the last 12-month period.

Total revenues of gas utilities from sales of gas to ultimate consumers, excluding sales to other utilities for resale, were $1,177 million in the first quarter of 1955. This was a gain of 13.4 percent over revenues of $1,039 million in the same quarter last year.

Sales of gas during the first quarter of 1955 amounted to 20,775 million therms, a gain of 8.4 percent over the 19,167 million therms sold in the same quarter of 1954. Gas utility and pipeline sales to ultimate consumers totaled 62,636 million therms in the 12-month period. This was an increase of 7.8 percent over the 58,115 million therms sold in the same period a year earlier.

On March 31, 1955, a total of 28.0 million customers, excluding approximately 250,000 customers receiving liquefied petroleum gas through utility mains, were receiving utility gas. This was a 3.4 percent increase over the 27.1 million customers served a year earlier. Of this number, 25.8 million were residential customers, a gain of 3.3 percent or 829,000 residential customers over a year ago.

Revenues from sales of natural gas to ultimate consumers amounted to $1,021 million during the first quarter of 1955, a gain of 15.1 percent over the $888 million a year ago.

In the first quarter of 1955, sales of natural gas increased 8.5 percent to 19,565 million therms from the 18,034 million therms sold during the same quarter of 1954. For the 12 months ended March 31, 1955, natural gas sales totaled 59,242 million therms, a 7.9 percent increase over the 54,894 million therms sold in the same period a year ago.

The 22.5 million natural gas customers on March 31, 1955, represented 80.3 percent of the total gas industry customers. A year ago there were 21.1 million natural gas customers, representing 77.9 percent of the total gas industry customers. Sales of manufactured and mixed gas increased 6.7 during the first quarter; sales revenues were up 3.1 percent.

Association issues 1955 'Gas Facts' statistical yearbook

THE 1955 edition of *Gas Facts,* the annual statistical yearbook of the American Gas Association, containing 1954 statistics on the gas utility and pipeline industry, is now available. This 272-page publication contains pertinent information on energy reserves, production, transmission and distribution, underground storage, sales and utilization, finance, labor, and prices, in addition to a brief section containing Canadian statistics.

The current edition provides 1954 industry totals for virtually all of the series included in previous issues. New material this year includes a separate income statement and balance sheet for pipeline companies, from 1941 to 1954; additional statistics on exploratory drilling for natural gas and/or oil; detailed tables showing appliance shipments by size, type of unit, and month.

Also included is a table showing, for selected cities, the cost (in cents per million Btu) of various residential heating fuels since 1941, with suggested fuel efficiency factors.

Complimentary copies of the volume have been mailed to delegates of member companies, and to statistical correspondents responsible for providing individual company data upon which most of the publication is based. Extra copies are available at $2.00 a copy for the first five copies and $1.50 a copy for all additional copies. They may be obtained from the Bureau of Statistics at A. G. A. Headquarters.

Publish pocket-sized summary of gas industry statistics

A NEW CONDENSED summary of gas industry statistics has been prepared by A. G. A. and is now available for distribution. Entitled the *Gas Data Book,* it is a pocket-sized publication containing 22 pages; it presents historical information on the principal measures of gas industry growth.

It is intended for easy reference when access to *Gas Facts,* the detailed annual statistical yearbook, is not possible, and for distribution to large numbers of people desiring only a brief analysis of the industry. Reference to *Gas Facts* will still be necessary whenever detailed information is desired, but the summary can make available to a larger audience some of the basic industry facts.

Many companies may wish to purchase substantial numbers of this pocket reference volume for both internal and external distribution. The first copy of the *Gas Data Book* costs 50¢; all succeeding copies will be 25¢ each. They are available from the Bureau of Statistics at A. G. A. Headquarters, 420 Lexington Avenue, New York.

A.G.A. Laboratories offer gas range research bulletin

COMPLIMENTARY copies of Research Report No. 1244, "Development of Improved Domestic Gas Ranges," are now available in multilith form from the American Gas Association Laboratories, 1032 East 62nd Street, Cleveland. This interim report discusses research conducted as a PAR Plan activity under Project DA-3-C sponsored by the Association's Committee on Domestic Gas Research.

The text of the report, prepared January, 1954, was presented to the industry during a series of field demonstrations by the Laboratories. Demonstrations were designed to acquaint the industry with research progress in developing improved features for domestic gas ranges. Data and descriptions are presented on Laboratories experimental top section burners, needle pilot, oven and broiler.

Bureau of Statistics provides marketing research guide

BASIC OBJECTIVES and techniques involved in marketing research have now been compiled into a useful guide by the Marketing Research Subcommittee of the American Gas Association.

Entitled *ABC's of Marketing Research for Gas Utilities,* the Guide discusses the location of marketing research within the organization, some principal objectives, and problems of staffing the department.

It further details procedures appropriate to assist in maintaining a high appliance sales volume, determine the number of appliances in use, measure appliance sales, analyze the future market for appliances, determine the inroads of competitive forms of energy, and analyze public attitudes toward the company and preferences for different fuels.

This guide is available upon request from the Bureau of Statistics at A. G. A. Headquarters.

Incentive plan cuts fleet accidents by half

Walter M. Jeffords, Jr. (l.), president, Brooklyn (N. Y.) Borough Gas Co., and William Chandler, chief field supervisor of customers' service, congratulate Philip B. Baas (r.), secretary and chairman of safety council executive committee, on the firm's safe driving award. Brooklyn Borough won in competition with eight other greater New York public utilities, for a record of 422,390 miles driven in 1954, with only five accidents

● By achieving a company goal of reducing fleet accidents 50 per cent under the average of the previous five years, Brooklyn Borough Gas Company drivers won the interfleet accident reduction contest award given by the Greater New York Safety Council. How Brooklyn Borough Gas accomplished this feat is recounted below.—Editor.

By PHILIP B. BAAS

Secretary, Brooklyn Borough Gas Company, Brooklyn, New York

Our fleet, averaging 50 automobiles, operates a total of from 350,000 to 450,000 miles per year. During the five year period from 1939 to 1943, we averaged 20 accidents per year. During the five year period from 1944 to 1948, we dropped to an average of 15 accidents per year. From 1949 to 1953, we averaged 13 accidents per year.

All during this fifteen year period, we carried on what we thought amounted to an adequate safety program. We held frequent safety meetings at which safe driving talks were delivered to the drivers and we showed numerous safe driving films. We subscribed to the National Safety Council Complete Motor Transportation Safety Services. In 1953, we entered our drivers in the National Safety Council Safe Driver Award Plan.

During 1953, we had ten accidents. We knew that this record could and should be improved. We decided that we required something that would provide a stimulus to our drivers to keep the idea of safety and *defensive driving* continually in their minds. For the purpose of accomplishing this, we decided to set up a group or team incentive plan. Consequently, the following plan was put into effect:

If during the year 1954, all the company drivers would be successful in reducing the number of accidents 50 per cent below the average for the previous five years, *i.e.*, six accidents or less, all company drivers would receive a $25 U. S. Government Bond at the end of the year. This was to be a team plan where, if successful, all drivers would receive an award and, if unsuccessful, none would receive an award.

A large sign was put in the company garage showing the progress being made throughout the year. When accidents did occur, they were analyzed and freely discussed in special group discussions which resulted in the development of team work. These discussions resulted in making all the drivers more conscious of why and how accidents occur and what to watch out for while driving. The drivers, 97 of them in all, were successful in winning the award by reducing the number of accidents to five for the entire year.

At the end of the year when it was determined that the group had won the award, we held a meeting which was attended by all of the drivers, and at which time, a $25 bond was presented to each of the participants by our president, Walter M. Jeffords, Jr.

For the purpose of acknowledging the importance of this event, all of the officers of our company attended the meeting. Norman Olman, director of the street and highway division of the Greater New York Safety Council, attended as guest speaker and congratulated the men for their achievement. Numerous photographs were taken and the event was given considerable publicity in the local and metropolitan newspapers. The names of all those who had received awards were also publicized.

The results of this plan were so encouraging and gratifying, we decided to continue it during 1955. The goal this year is three accidents or less. During the first eight months of this year, we have had one accident.

Utilities back remodeling contest

The American Gas Association and its member utility companies, gas appliance manufacturers, and dealers across the country are preparing for one of the biggest kitchen remodeling promotions in the industry's history—*McCall's* $30,000 Kitchen and Laundry Contest, which is being launched in the magazine's September issue.

The contest calls on *McCall's* readers to draw up plans for the complete remodeling of their present kitchens, kitchen-laundry combinations, or laundries. Among the top prizes are two reserved exclusively for the best gas entries.

One winner will have her plans for the kitchen or kitchen-laundry of her dreams turned into a reality by *McCall's*. Another will have her laundry plans built into her home, free, by the magazine. And there'll be more than 200 additional prizes, including major kitchen and laundry appliances, small appliances, and housewares.

More than 150 utility firms have scheduled support of the giant remodeling promotion, with plans ranging from creating local kitchen planning headquarters at utility company offices to conducting local sub-contests.

In addition to the more than 200 national awards, a number of local contests will be conducted, with prizes offered by the conducting utility firms for the best local entries in their areas. Approximately 25 gas companies have expressed interest in running local contests of their own, and to date half a dozen have definitely scheduled their own local competitions.

Illustrations of ultra-modern gas equipment in September "McCall's" launch national kitchen-laundry remodeling contest. Four-month contest will be supported by 150 utilities, 140 manufacturers, plus dealers, kitchen design specialists

Sponsorship of a local contest-within-a-contest offers gas utilities two specific advantages. First, it makes it possible for them to stimulate stronger local interest in a promotion which is sure to stir up remodeling interest and create new business. Secondly, it gives them the opportunity to promote most effectively the use of their own fuel, thereby directing local interest specifically toward new *gas* kitchens.

Entry in any one of the local contests automatically makes a contestant eligible

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A.G.A-PCGA convention

(Continued from page 5)

and Section members will elect officers for the coming year. The session will be concluded by J. C. Messer, The Peoples Gas Light and Coke Co., Chicago. As chairman of the subcommittee on electronic accounting developments, he will talk on measuring problems of today and tomorrow in electronics.

D. W. Peterson, Minneapolis Gas Co., and A. G. A. coordinator, General Activities Group, will serve as chairman at the Tuesday luncheon meeting starting at 12:30 p.m. in the Sierra Room of the Statler. Three members of the Section will be given the Accounting Merit Award by A. G. A. President F. M. Banks at this meeting.

Chairman Gardner will present a report of the major accomplishments of the Accounting Section during the past year. Gilbert J. Williams, executive vice-president, Connecticut Light and Power Company, will discuss employee relations in the utility industry. A panel of experts headed by J. Stanley Green, Southern California Gas Company, will discuss "Internal Auditing in Relation to Methods and Procedures." The final paper of the session will deal with "Accelerated Depreciation", and will be presented by R. A. Rosan, The Columbia Gas System, Inc., New York, a member of the A. G. A. Depreciation Accounting Committee.

Stackpole to address joint luncheon

Employing a different pattern this year, the Industrial and Commercial Gas Section will initiate its program at a joint luncheon with the Residential Gas Section on Monday, October 17, in the Cocoanut Grove of the Ambassador Hotel. Ray Trowbridge, Seattle Gas Co., and Walter H. Kurdelski, Michigan Consolidated Gas Co., chairmen of the respective Sections, will preside at this luncheon.

The program has been streamlined to expedite meetings of the individual sections. C. S. Stackpole, managing director of A. G. A., will welcome delegates, and will introduce Mrs. America of 1956, Mrs. Ramona Deitemeyer, of Lincoln, Nebraska. He also will introduce C. H. Zachry, president, Southern Union Gas Co., Dallas, and vice-president, A. G. A. Mr. Zachry, who is chairman of the PAR Committee of A. G. A., will present the main luncheon address.

The Section's Program and Papers Committee under Walter S. Anderson, Boston Consolidated Gas Co., prepared a complete program covering important phases of industrial and commercial selling for the afternoon meeting in the ballroom of the Ambassador Hotel. F. D. Campbell, president, New England Gas and Electric Association, Cambridge, Mass., will discuss the timely subject of the effect of atomic energy utilization on the industrial fuel industry. Mr. Campbell is chairman of the A. G. A. Atomic Energy Committee.

R. D. MacMahon, Southern California Gas Co., will tell delegates how his company has achieved years of success in merchandising industrial and commerical gas in a talk, "Integrating Local Sales with National Sales." Views of an advertising agency executive on sales will continue Mr. MacMahon's theme. Tyler McDonald, vice-president, Nixsen Jorgenson Co., will speak on dynamic selling.

Ray Trowbridge, Section chairman, will present the annual report of the Section briefly in a paper "What's the Answer?" Closing the Section session will be the election of officers for the next Association year.

The Operating Section will hold afternoon sessions on Monday and Tuesday in the Biltmore Hotel, which will serve as headquarters for operating personnel. Walter H. Davidson, Transcontinental Gas Pipe Line Corp., will preside as chairman of the Section at the first session. Tuesday's session will be headed by J. H. Collins, New Orleans Public Service, Inc., Section chairman-nominee. In addition to conducting section business, three papers of broad technical interest will be presented on Monday and four on Tuesday.

Following the report of the Section chairman on Monday, the first paper will be presented by E. J. McConnell, Stone and Webster Service Corp., on the economics of gas distribution. Quality control as a supervisory tool will be discussed by G. J. Sandusky, Southern California Gas Company. E. M. DeMouche, Houston Pipe Line Co., will speak on the application of telemetering and remote control to gas dispatching.

On Tuesday, the report of the Nominating Committee will be read and Section members will elect the 1956 officers. Chairmen of the Section's 1955 committees then will be recognized.

The first paper will be presented by Karl B. Nagler, The Peoples Gas Light and Coke Company. He will talk on management's responsibility for safety. C. E. Loomis, Columbia Gas System Service Corp., will draw on the experiences of his company to tell of the advantages of underground storage in the operation of a gas utility.

J. N. Landis and Frederic A. Hough, Bechtel Corp., are joint authors of a paper on the role of engineering in the gas industry. The session will conclude with a paper outlining what the corrosion engineer can do for management by Guy Corfield, of Southern California Gas Company.

The Residential Gas Section meeting on Tuesday afternoon will be a streamlined, high-speed session, bringing gas men an array of up-to-the-minute subjects to be discussed by top-ranking executives. Chairman Walter H. Kurdelski will open the meeting with a welcome to delegates. After a report from the Nominating Committee, Section members will elect officers for the coming year.

Baxter to speak on sales

Chairman Kurdelski will present a report on Section activities for the past year. Then L. L. Baxter, president, Arkansas Western Gas Co., Fayetteville, Ark., will discuss the progress and development of the gas industry in a provocative talk: "Forward Is the Buy-Word." He will review A. G. A. sales and promotional activities on behalf of gas utility companies and offer his ideas and recommendations on steps the industry can take to maintain and increase its competitive position in the residential field.

Well known Broadway and TV talent will be featured in "A Tale of Two Kitchens," a new Eastman color movie, produced in cooperation with *Woman's Home Companion.* The film presents a complete story on planning a gas kitchen and laundry and features two outstanding New Freedom Gas Kitchens and Laundries.

Duncan C. Menzies, president, Servel, Inc., in a presentation: "To the Victors," will donate awards to the gas utility companies that have done the best selling job on gas refrigerators in a five-month campaign, sponsored jointly by A. G. A. and Servel.

Gas sales personnel will be interested in a talk given by J. Theodore Wolfe, executive vice-president, Baltimore Gas & Electric Company. Mr. Wolfe is chairman of the A. G. A. Gas Industry Development Committee, and he will discuss objectives and results of this important campaign, including some fine results of the ten Action Demonstration City Programs.

Two motion pictures in color, which should be of great interest and importance to those in attendance, will be shown. First will be a premier showing of a film entitled: "Challenge Accepted," and produced by The Coleman Co., Inc., Wichita, Kansas. All year gas air conditioning, a most important and fast-growing gas service, is the subject of this film. In a similar category is the film "Hey, Charlie" which presents Consolidated Edison's amusing approach to the sale of residential gas space heating. Prizes will be awarded to ticket holders at the end of the Residential Gas Section sales meeting.

Katherine L. Rathbone, home service supervisor, Southern Counties Gas Co., chairman of the A. G. A. Home Service Committee, will preside at the Home Service Breakfast, to be given in the Embassy Room of the Ambassador Hotel, at eight a.m. Tuesday, October 18. Greetings to delegates will be extended by President F. M. Banks and Managing Director C. S. Stackpole. Following these messages of welcome, a dramatic presentation, "Operation Womanpower" will be presented by a cast from the Southern California Gas Company and moderated by Gladys B. Price, home service supervisor of Southern California Gas Company. This skit was a popular feature at a recent meeting of the Sales Executives Club in Los Angeles.

On Monday afternoon the Home Service Round-table will be held in the Galeria Room at the Biltmore Hotel. Two magazine editors, who are sponsoring New Freedom Gas Kitchens on display during the convention, will participate in this program. Mrs. Maxine Livingston of *Parents'* Magazine will discuss the subject "The Home Laundry—the New Area of Family Activities." A talk on "Kitchen News" will be given by Mrs. Elizabeth Sweeney Herbert of *McCall's* Magazine.

Two home service subjects will be presented by members of the home service department of the Southern Counties Gas Company. Katherine Davis will moderate a panel, "Junior Home Economists Look at Business." She will be assisted in this by Dr. Gladys Stevenson, head of the home economics department of Whittier College, and Janet Smith, a student. Study and research of a new feature of gas ranges will be discussed by Shirley Brua, home service dietitian, with a subject: "Rotisseries Are Worth a Second Look." Home service meetings, the breakfast and round-table discussions are open to all convention delegates.

Seattle PR

(Continued from page 13)

forecast great opportunities for the Northwest when it joins the natural gas network. He called for greater application of the Action Program for Gas Industry Development, a program which, he said, applies more to the gas industry in the Northwest than to any other section of the country.

Conversion experiences of Springfield (Mass.) Gas Light Company were detailed by Robert M. Brigham, assistant vice-president.

The safety of gas is a fundamental precept of the industry and is backed up by research tests and projects throughout the country, according to C. C. Westmoreland, supervising engineer, Southern California Gas Company. [Mr. Westmoreland's remarks are in the article on page 11.—Ed.]

W. L. Shomaker, vice-president, Northern Natural Gas Co., Omaha, cited area development programs as a valuable means of building good will. Northern Natural's area development department works closely with city and state chambers of commerce, industrial development commissions and the gas company's PR department, Mr. Shomaker said. In the past two or three years, more than 100 new industries have moved into the utility's territory.

C. S. Hazel, manager, customer service department, Philadelphia Gas Works, discussed "Maintaining Good Public Relations Through the Servicing of Heating Equipment." A policy of "free service" tends to assure efficient utilization of gas and has an important bearing on public relations, he emphasized.

"How the National Associations Work for You" was described on the second morning of the conference by Remick McDowell, chairman, A. G. A. General Public Information Planning Committee; H. Leigh Whitelaw, managing director of GAMA; Vincent R. Fowler, vice-president, Bozell & Jacobs, Inc., representing INGAA; and Mr. Arden, pinch-hitting for Robert E. Borden, then secretary, National Council for LP-Gas Promotion.

These information programs "can serve as a means of getting new ideas to you in the fields of public relations," Mr. McDowell pointed out. "They can also provide an adequate clearing house for interchange of ideas between local operating companies. And last, but not least, the national associations can provide a canopy of national publicity which can partially offset the concepts being built up by competitive fuels and ideologies."

Special features of the conference were two panel discussions with the program speakers participating. R. G. Barnett, vice-president, Portland Gas and Coke Co., was moderator for the panel on natural gas promotion, and W. M. Jacobs, vice-president and assistant general manager, Southern California Gas Co., was a panel member. Nathan H. Gellert, Jr., then vice-president, Seattle Gas Co., and since elected president of Spokane Gas Co., moderated the panel on natural gas changeover.

The first panel agreed that the public should be informed that dependable supplies of natural gas will be provided to the Pacific Northwest from dual pipeline systems, and that natural gas is a superior, clean fuel. It was also agreed that forecast of specific reductions in rates could be both dangerous and misleading.

There was agreement among the second panel that a successfully planned and executed conversion is one of the most effective means of building morale and of broadening services to the community. Panel members emphasized that each utility should make maximum use of its trained manpower during conversion, be strictly honest with its customers and educate them on the true characteristics of natural gas.

Sparkling all-gas kitchen, with star Joan Char
featured in "Tale of Two Wives," produced by
ion" and to be distributed as official film of N

A.G.A., builders sponsor new "Companion" film

a PAR activity

Again the gas industry and the homebuilding industry have joined with *Woman's Home Companion* magazine to produce and distribute an 18-minute color movie featuring an all-gas kitchen and laundry.

Entitled "Tale of Two Kitchens," this year's film is expected to reach an even greater audience than did last year's "A Word to the Wives." As the official kitchen film for the National Association

"Floating island" built-in top burner unit brings
ily room. Spacious room, with formal living room
appears even more spacious when drapes are d

k, is one of two kitchens onjunction with "Compan- ociation of Home Builders

Other film-featured kitchen is focal point of "Companion's" "House for Family Living." Film shows both this new-home kitchen and a remodeled kitchen (see left), both completely gas. For exterior view of "Companion's" "House for Family Living," built in eight cities, see far left

of Home Builders, the Eastman Color movie will be shown to 26,000 NAHB members, at every NAHB home show throughout the country, and will be seen twice over the air in every U.S. city with TV facilities.

The film is available to gas companies for their own use and may be ordered through A. G. A.'s New Freedom Gas Kitchen and Laundry Bureau. The 16mm color and sound print is priced at $110; black-and-white is $80 per print.

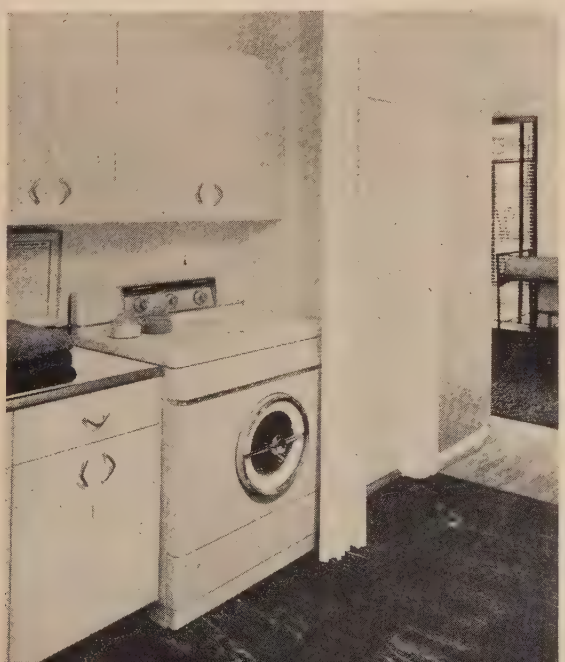
The theme of "Tale of Two Kitchens" is built around the all-gas kitchen—one in a new home and the other a remodeling job. Because of this emphasis on kitchen planning it is expected that the film will have a broad educational appeal to housewives who either contemplate building a new home or redesigning present kitchen-laundry facilities.

The new kitchen is the central focus of the *Companion's* "House for Family Living," a home designed by architect George Nemeny and featured in the magazine's September issue. The pilot house has been erected in New Rochelle, N. Y., and other NAHB builders are erecting the same house in Indianapolis, Ind.; New Orleans, La.; Detroit, Mich.; St. Louis, Mo.; Tulsa, Okla.; Pittsburgh, Pa.; and Abilene, Texas.

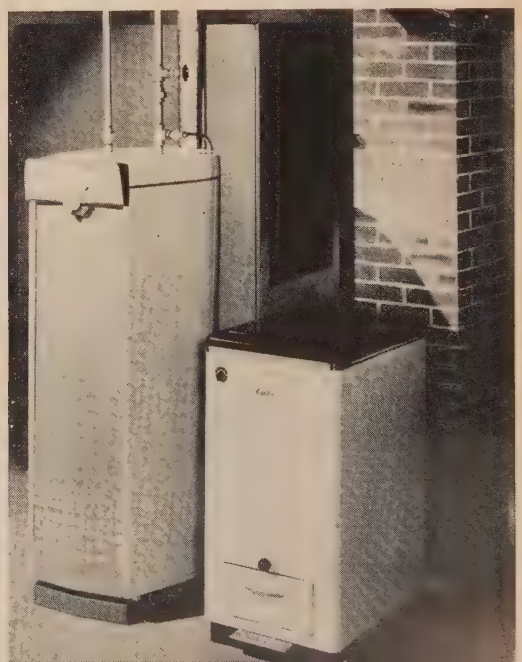
The *Companion* house is literally built around an all-gas kitchen and laundry that is part of a huge room where the family's activities are centered. The

well into all-purpose fam- sleeping quarters to right, ass wall leading to terrace

Home laundry adjunct to "Companion's" all-gas kitchen has gas Duomatic to perform both clothes washing and drying household chores



Rounding out all-gas appliance features are gas water heater and gas incinerator. Heater is Permaglas, incinerator made by Caloric



kitchen is anchored like a floating island in the central section of the house with this central family section tying together the two other areas of the house. The three bedrooms are grouped on one side of the living-kitchen; the rooms for the social side of a family's life—the living room and dining room—on other side.

Against this background—and that of another remodeled kitchen—three leading TV and stage stars, Joan Chandler, William Prince and Grace Albertson, play their parts. Working on the script and production with George Oppenheimer, a Broadway playwright, were Bernice Strawn, *Companion's* home equipment editor; Mildred Clark, home service supervisor, Oklahoma Natural Gas Co.; and Mary Huck, home service director, Ohio Fuel Gas Company.

The color was judged to be so outstanding that RKO Pathe, who filmed "Tale of Two Kitchens," plans to use the film to show New York and Hollywood film producers the possibilities of Eastman Color.

Other promotional materials available to gas companies through the New Freedom Gas Kitchen and Laundry Bureau are 16-page reprints from the *Companion's* September issue, including A. G. A.'s ad section; a floor display and material for a newspaper section.

Facts and figures

(Continued from page 18)

Laundry Manufacturers Association.

Total operating revenues of the gas utility and pipeline industry (including revenues from sales for resale) during the 12 months ending March 31, 1955, reached a record $4,842 million, up 13.0 per cent over the same cumulative period ending March 31, 1954. Total operating expenses of $3,266 million were 12.5 per cent greater than a year ago and represented 67.4 per cent of the total operating revenues. Taxes paid by the industry aggregated $602 million, up 11.3 per cent over a year ago. Taxes continue to represent a greater proportion of operating revenues than do the amounts available to the stockholders and for future expansion needs by the industry. Net income totaled $471 million, up 15.2 per cent over the same cumulative period ending a year ago, and represented 9.7 per cent of total operating revenues compared to 11.3 per cent for taxes.

Utility and pipeline sales of gas to ultimate consumers during June totaled 4,441.8 million therms, up 4.8 per cent over June of last year. During this same period sales of gas to industrial users increased approximately 7.5 per cent. Industrial production as measured by the seasonally adjusted Federal Reserve index reached a new record high of 139 (1947-1949 = 100), up 12.1 per cent over June, 1954. The Association's June index of utility and pipeline gas sales is 191.5 (1947-1949 = 100). During the 12 months ending June 30, 1955, total utility and pipeline sales of gas aggregated 64.0 billion therms, up 8.5 per cent over the same cumulative period ending June 30, 1954, when gas sales totaled 59.0 billion therms.

TOTAL GAS INDUSTRY INCOME STATEMENT

(MILLIONS OF DOLLARS)

	Twelve Months Ending March 31		Percent Change
	1955	1954	
Total operating revenues	$4,842	$4,286	+13.0
Operating expenses—operation	3,081	2,734	+12.7
Operating expenses—maintenance	185	169	+ 9.5
Operating expenses—total	3,266	2,903	+12.5
Depreciation, retirements, depletion, amortization	337	302	+11.6
Federal income & excess profits taxes	365	319	+14.4
All other taxes	237	222	+ 6.8
Total taxes	602	541	+11.3
Total operating revenue deductions	4,205	3,746	+12.3
Net operating revenues	637	540	+18.0
Other income	41	48	+14.6
Gross income	678	588	+15.3
Interest on long-term debt	197	172	+14.5
Other income deductions	10	7	+42.9
Total income deductions	207	179	+15.6
Net income	471	409	+15.2

Natural gas safety

(Continued from page 13)

mained normal in every respect. Animals exposed to 80 per cent gas for eight hours were unaffected."

This, combined with an earlier study on the effects of gas leaks on room atmospheres which proved that tremendous quantities of lighter-than-air natural gas must be released in even tight quarters before a dangerous condition can exist, tied the point down rather well.

Such an important point, however, bears repeating. Personnel changes occur in public agencies just as they do in our business and new residents from areas where manufactured gas is served often do not know that natural gas is free of poisonous elements.

This fact is repeatedly demonstrated by the unsuccessful attempts of would-be suicides. Here is what one health official had to say on the subject as reported in the March 16, 1953 *Time* magazine:

"Natural-gas pipelines, big-inching their way across the U.S., are changing the pattern of attempted suicides and may be saving lives. Dr. David M. Spain, medical examiner of New York's Westchester County, reached these conclusions after studying the effects in his county since natural gas replaced manufactured gas a year and a half ago. Previously, he said, among 180 suicides, no fewer than 42 had been committed with illuminating gas. Since the changeover, there have been 120 suicides—not one of them with gas.

"The reasons for the difference are partly chemical, partly psychological. Manufactured gas is full of carbon monoxide, which has an even greater affinity for the body's hemoglobin than oxygen has. Natural gas is composed largely of methane and ethane, which do not replace oxygen in the blood. The only way they can kill is by diluting the oxygen until the victim suffocates. But this takes a long, long time, said Dr. Spain, and in the meanwhile, most would-be suicides change their minds or are discovered."

In summary, all I have said is this: Take the initiative in informing the administrative people of local government about our business. Work sincerely with them in seeking solutions to mutual problems. You will have better laws, better enforcement, and you will gain important support in publicizing the fact that natural gas is safe.

Property records take on new importance as increased competition demands accurate forecasting

How property records aid forecasts

By WILLIAM T. MOTT

The Peoples Gas Light and Coke Company
Chicago, Illinois

Rate case litigation and mortgage financing operations focus attention upon the values obtained from maintaining an adequate system of continuing property records. Indeed, it is generally recognized that it would be difficult, approaching the impossible, to develop rate base figures satisfactory to regulatory commissions, and meeting requirements of the rules of evidence in case of appeal, without the use of continuing property records.

In a bond financing operation it would be awkward, time consuming and expensive to describe bondable property as security to a mortgage without the use of information supplied by continuing property records. In these instances, even the least accounting minded among us is aware of the importance the details in the plant accounts hold for the utility enterprise.

In recent days, the stress of increasing competition coupled with the realities of regulation result in a new and equally important use for property account details and related accounting techniques. This is in the matter of forecasting the financial condition of the utility enterprise by anticipating the economic impact of the future—estimating the net income from utility operations, the rate of return to be expected in succeeding years, the probable composition of the rate base structure and the annual provisions for depreciation.

The property accounts hold the key to the significance and value of these final results because they are the principal element in rate base determination, effectively the yardstick or measure of earnings, and because they are the base for the important item of depreciation expense. For these reasons the property accounts have exceeding prominence in utility long range forecasting and future property estimates must be developed as carefully as estimates of net operating income, if the latter figure is to be realistic.

W. T. Mott, A. G. A. Property Records Committee chairman, heads property accounting at Peoples

Preparing such estimates requires cooperation between peoples of normally diverse interests in the table of company organization and the correlation of many talents which combine in successful utility operations.

As a rule, long range projections are comprehensive in scope and embrace all phases of the company's operations. A complete picture would include such considerations as financing, income and expense, property changes, taxes and other related matters.

This article will deal principally with those activities relating to a projection which are part of the property record department's responsibility.

The end object of long range property forecasting is a series of exhibits which will include:

1. Property schedules showing estimated additions, retirements, transfers and year end balances for each year in the forecast period.
2. Computations of annual provisions for depreciation incorporating changes in estimated lives of property due to future obsolescence, changes in the art and other causes.
3. Depreciation reserve schedules showing estimated depreciation provisions, original cost of property retired, salvage and dismantling costs, and transfers between accounts and other reserves which will affect reserve balances during the period subject to forecast.
4. Fair value or original cost rate base calculations projected into the future and based on the latest commission findings.

There are two basic projections upon which a long range forecast is dependent, namely, the potential market and the potential supply of the service furnished by the particular utility. They are bilat-

eral in importance, but it is usual first to seek the answers to the potential market question. To obtain this estimate, the services of a market analyst are used—whether an independent market survey firm or an integral marketing research unit in the utility's own organization.

The market projection should include an estimate of the total market volume potential, the segregation of that market potential by class of business and the concentration and locale of the future market as compared with the present customer distribution. This involves appraising and trending urban growth, population characteristics, industry saturation, public buying habits, etc. To point to this effort at this time is to recognize that market forecasting is a specialized technique upon which much more can be written than space here permits.

The estimates covering the potential market requirements are used by the company's engineering organization in ascertaining the future demand, the kind and quantities of production capacity available, and the potential source of supply. On the basis of this information, estimates are prepared by the company's engineering organization describing necessary plant additions, changes and replacements to provide the necessary plant investment to make this supply available to the potential market.

Consideration must be given in arriving at these property estimates to improvements in the art of production, new discoveries, future obsolescence and physical deterioration and depreciation of property, plant and equipment.

The engineering contribution to the long range forecast is a detailed schedule of estimated additions, retirements, transfers and replacements of property during the forecast period. This information should be in sufficient detail to identify by description the kinds and types of property involved and all other pertinent data necessary for estimating the complete effect of such conclusions on the property accounts, depreciation reserves, depreciation provisions and average service life statistics.

Analyze additions

The plant accountants first take the schedules and information furnished and prepared by the engineers and transpose these data to show their effect upon property, plant and equipment accounts. Additions are analyzed and summarized by account and then by life characteristics for determination of average service life or other similar computations.

Retirements of property, plant and equipment require careful consideration in pricing and establishing the retirement units to be retired. The property accountant must exercise sound judgment in his appraisal of the associated items relating to units to be replaced or retired. The fact that a forecast cannot be detailed to the last item or unit to be replaced or retired by the operating department, places the requirement of proper interpretation heavily upon the property department, and careful attention must be given to related items of property.

Retirements indicated in the projection data prepared by the engineering organization should be priced on the basis of the original cost of such property appearing in the property records. The pricing of all retirements should follow company policy to the extent practicable. This is to say that specific original cost should be used where it is identifiable, and average unit costs, first-in first-out or other mass account pricing formulae should apply where appropriate, and with reasonable limits of exactitude.

In the accounting preparation of property projections, close attention must be given to future changes in the use of existing property. A utility plant structure proposed for erection on land presently classified as "Held for Future Use" is a directive for reclassifying the land to "Utility Plant in Service" in the year of the structure addition. Similarly, many estimated future property additions and retirements will be coincident with changes in the art, operating conditions or manufacturing and distribution processes. Here again, these estimated additions and retirements must reflect future reclassification of existing property as its use or its usefulness may change.

Annual depreciation provision estimates for each year of the forecast period are prepared, incorporating changes in estimated life characteristics due to future obsolescence, changes in the arts and other causes. For optimum refinement, all estimated additions, retirements and transfers should be classified on the basis of functional or physical characteristics and the average service life rates, remaining life expectancy calculations or other expressions of mortality experience adjusted each year to reflect the estimated property changes. On such a basis, the calculation of the estimated annual provisions follow the procedures regularly used in calculating the actual current provisions for depreciation.

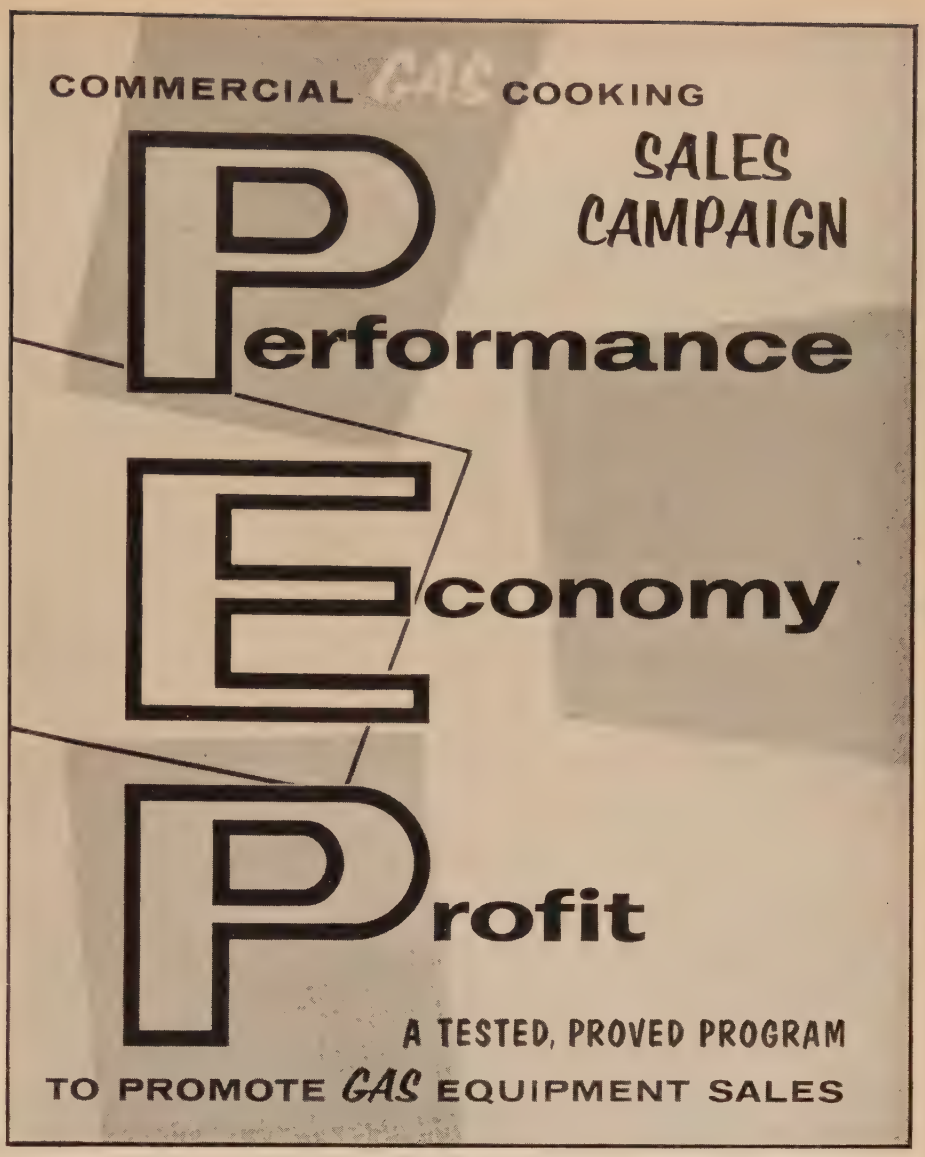
Whether the depreciation provisions for each year of the forecast period are painstakingly prepared, or more loosely approximated by using the current composite depreciation rate, or some other method, they still serve their purpose as

(Continued on page 51)

Accounting Section Managing Committee meets

Austin T. Gardner (center of table), Delaware Power & Light Co., conducted a recent A. G. A. Accounting Section Managing Committee meeting at Hot Springs, Va. During the two-day meeting, the group discussed cost management control programs, accelerated depreciation, electronic accounting machines

Propel '55 PEP sales campaign



a PAR activity

Commercial gas sales activity of the industry is again focussed on the PEP commercial gas cooking sales campaign. Starting this month and running through until November 30, the annual A. G. A. sponsored sales and promotional program is combining the sales talents of commercial gas men, manufacturers and dealers in a coordinated drive to modernize out-of-date commercial kitchens and to sell new labor-saving equipment where needed.

The word PEP comes from the initials of the words, Performance, Economy and Profit, with the campaign theme being, "For Commercial Cooking, It's Gas for Top Performance, Greater Economy and Higher Profit!"

Particular sales stress is given to the replacement of obsolete and inefficient cooking equipment with modern automatic gas appliances for increased food production, lower labor costs, greater operating economy, greater over-all kitchen efficiency with resultant increases in profits.

A complete working program has been mailed to all member companies in a portfolio which also contains samples of dealer displays and special sales literature available. Included is a complete suggested sales letter series for mailing to dealers, dealer salesmen, customers and prospects.

All program details, all suggested activities as well as the direct mail components have been planned and tailored for the use of individual members as a local program. The program is flexible to allow a company to follow the pattern either wholly or in a modified way so as to suit its local conditions and meet budget limitations.

Greater emphasis has been placed on the use of direct mail selling letters to yield replies from interested prospects. Full employment of these sales letters permits a company to conduct a vigorous campaign even with a restricted budget and with a limited sales staff. By directing a series of letters to dealers and their salesmen, it is also possible to build and maintain a high level of sales enthusiasm throughout the campaign.

Companies who in the past may have been reluctant to conduct a campaign because of extra "legwork" and the stress of an increased sales tempo, will find the new PEP campaign an answer to such objections. The direct mail and series of sales letters allow any company, regardless of the size of its sales staff and the size of its budget, to conduct an effective load building and load insuring campaign, even though it might be termed an "armchair" campaign.

Why does the gas industry unite in a commercial gas cooking sales project?

Simplified, the answer is, "To build

(Continued on page 52)

A.G.A. display to stress gas versatility at metal show

Lewis Barry, display builder for A. G. A., depicts background for Combined Industrial Gas Exhibit at October metal show to members of Committee on Displays at National Exhibitions

Once again the Industrial and Commercial Gas Section, American Gas Association, will sponsor the largest single exhibit of the 37th National Metal Exposition and Congress to be held this year in the Convention Hall and Commercial Museum, Philadelphia, during the week of October 17-21.

Nine exhibitors are cooperating in this annual show to demonstrate the many uses and importance of gas fuel in the metalworking industry. How industrial gas equipment fits into the production line as a tool will be one of the points featured in the A.G.A. gas area.

Those companies who will spell out the many advantages of industrial gas utilization are: American Gas Furnace Co., Elizabeth, N. J.; Continental Industrial Engineers, Inc., Chicago, Ill.; Gas Appliance Service, Inc., Chicago, Ill.; The Gas Machinery Co., Cleveland, Ohio; Charles A. Hones, Inc., Baldwin, N. Y.; The C. M. Kemp Mfg. Co., Baltimore, Md.; The Lithium Co., Newark, N. J.; Metalwash Machinery Corp., Elizabeth, N. J.; Selas Corporation of America, Philadelphia, Pa.

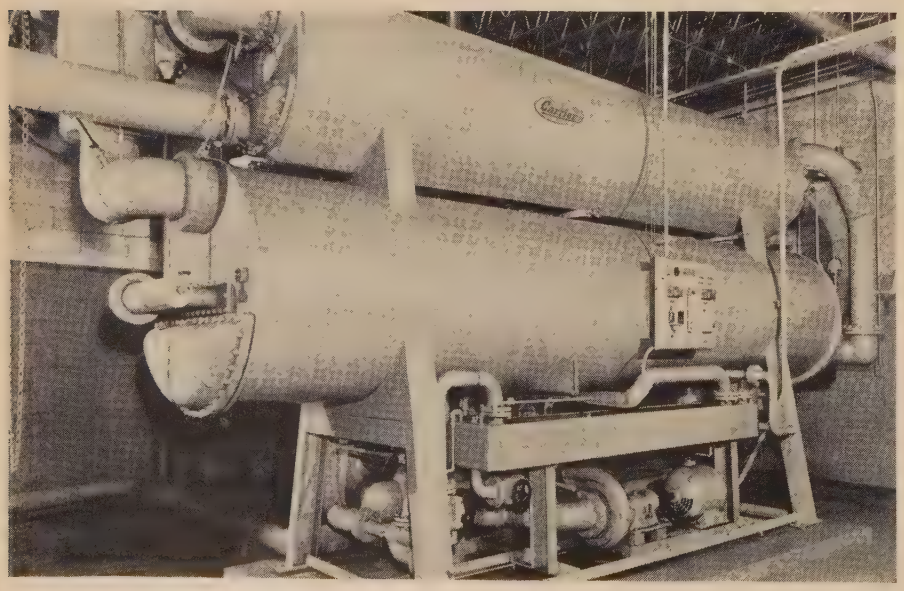
The 19th annual Industrial Gas Breakfast, always a highlight of Metal Show Week, will be held on Wednesday morning, October 19, in the Pennsylvania Room of the Penn-Sherwood Hotel. Here again at this traditional affair, a representative of the American Society for Metals, Walter Crafts, will bring greetings from his organization to industrial gas men, manufacturers of industrial gas equipment and representatives of the metal-working press who gather at this breakfast each year. Mr. Crafts is associate director of research, Metals Research Laboratories, Haynes Stellite Co., Niagara Falls, New York.

A most interesting and informative speaker will address the breakfast this year to relate the planning, construction, and operation of the Fairless Works of U.S. Steel at Morrisville, Pennsylvania.

Plan now to visit historic Philadelphia and arrange your dates to include the breakfast on Wednesday, October 19.

Committee meetings of the groups identified with industrial gas activities will be held on Tuesday and Wednesday, October 18 and 19, at the Penn-Sherwood Hotel.

Latest Carrier absorption machines operate on hot liquids



Large-capacity, light-weight absorption refrigerating machines made by Carrier Corporation are said to produce more cooling per ton of weight than any other type, using steam or any hot liquid. Units adjust automatically from full to zero load and back again with little loss in efficiency, Carrier reports. Pictured machine provides 350 tons cooling. Line of 11 machines ranges from 100 to 700 tons capacity

ABSORPTION refrigerating machines which have no major moving parts and produce chilled water from hot steam are now available for large-capacity process cooling installations in 11 sizes from 100 to 700 tons, reports Carrier Corp., Syracuse, New York.

The new type of absorption machine will adjust automatically from 100 percent capacity down to virtually zero load with little loss in efficiency. It is designed to produce low-cost cooling wherever an economical source of heat, such as natural gas, is available.

Light weight and lack of moving parts allow the absorption machine to be installed anywhere in the plant, on structural steel or on top of process columns, putting the unit close to process requirements. Its sturdy vertical assembly occupies a minimum of space.

As there are no large motors or other rotating parts, vibrationless operation is assured. Quiet in operation, the machine may be installed next to plant offices or on the floor above a drafting room. The machine is said to produce more cooling per ton of weight than any other type of refrigeration equipment on the market.

W. H. DAVIDSON, *CHAIRMAN* • J. H. COLLINS, GROVE LAWRENCE, *VICE-CHAIRMEN*

Philadelphia Electric reforms natural gas through continuous process to produce high-hydrogen gas

Install modern catalytic reformers

By G. RUSSELL KING

Staff Engineer, Gas Operations
Philadelphia Electric Company

On New Year's Day of 1955, a new era of gas production began in the Philadelphia Electric Company.

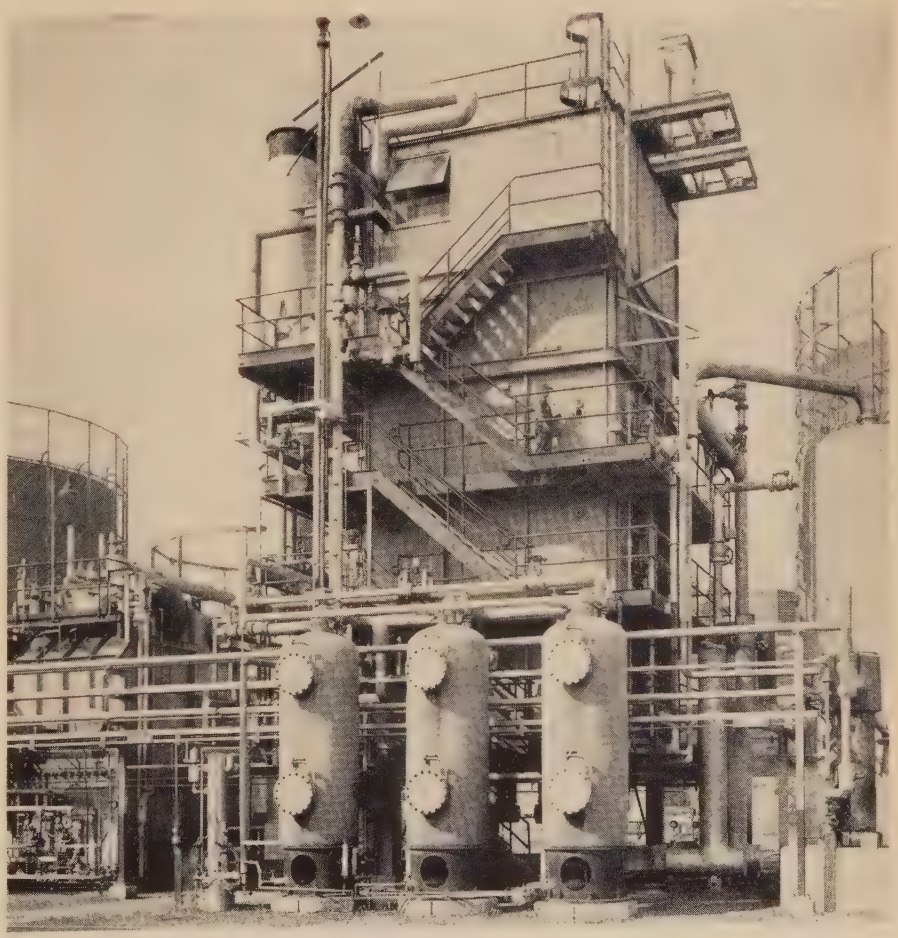
For 35 years the West Conshohocken gas plant of the Philadelphia Electric Company had purchased coke oven gas from a merchant coke plant about 1¼ miles away. But at midnight of December 31, 1954, the contract expired; and as clocks and whistles everywhere announced the new year, the coke oven gas supply valves were closed and the gas flow stopped.

Before natural gas came to Philadelphia Electric Company the base gas out of West Conshohocken was practically 100 percent coke oven gas at 520 Btu per cubic foot and 0.450 specific gravity. After natural gas become available, the characteristics of the base gas were changed to 801 Btu per cubic foot and 0.580 specific gravity, comprising a mixture of 29.5 percent of coke oven gas, 61.5 percent of natural gas, and 9.0 percent of diluent air.

The coke oven gas supplied the 16 to 18 percent of hydrogen which was required in the new base gas to assure satisfactory performance in customers' appliances. But when the coke oven gas supply valves were closed at midnight on December 31, 1954, the coke oven gas was not missed at all, because three newly installed gas making units "went on the line" supplying the necessary hydrogen.

Philadelphia Electric Company engineers had begun preparing for this moment some five or so years before. All commercially available and reliable high-hydrogen production processes were investigated. The one selected was the continuous catalytic reforming process made by The Girdler Corporation of Louisville, Kentucky.

This process had never been installed in a gas utility plant, but it had been proved by years of service in commercial plants which required nearly pure hydrogen. Adaption to gas utility needs was rather simple, so Philadelphia Electric Company contracted for and installed three units. Since the moment these units "went on the line" on New Year's Day, 1955, for baseload production of high-



One of three catalytic reforming units installed by Philadelphia Electric. Three units can produce 21 mcf high-hydrogen gas per day, or when mixed, 70 mcf of send-out gas

hydrogen gas, they have been all it was hoped and promised they would be.

Each of the three installed units has a nominal daily production capacity of 5,500,000 standard cubic feet when reforming natural gas, and 4,000,000 standard cubic feet when reforming propane, at 250-300 Btu per cubic foot. These capacities can be exceeded without difficulty, and the three units together, operating continuously on natural gas, can produce a volume equivalent to that of the coke oven gas, which was approximately 17,500,000 cubic feet per day at 530 Btu per cubic foot.

The base sendout gas at 801 Btu and 0.58 specific gravity requires approximately 30.5 percent of this reformed gas, 68.5 percent of natural gas, and one percent of diluent air.

In general, one of these continuous catalytic reforming units consists of a Reformer Furnace, or combusition chamber, which is divided vertically into four "cells." In each "cell" are suspended four tubes of stabilized chromium-nickel stainless steel filled with a nickel base catalyst.

The process heat required by the catalyst for proper reforming is applied externally to the tubes through a number of burners located along the vertical walls of the combustion chamber.

The feedstock mixture of hydrocarbon gas, steam, and air is admitted into the top of the reforming tubes. It passes over the hot catalyst, and is reformed into a gas consisting essentially of hydrogen, carbon monoxide, carbon dioxide, nitrogen, and some uncracked methane. This reformed gas has heating values of 250-300 Btu per cubic foot, and specific gravities of 0.330 to 0.480, depending upon the temperatures and the amount of air used.

The reformed gas passes from the bottom of the catalyst tubes to a contact-cooler (reverse flow water spray) where it is cooled to about 100 F. As the gas is clean, and free of sulphur and all impurities, it passes directly to the storage holder.

The heat in the waste products of combustion is recovered in a waste heat boiler. When reforming natural gas, the waste heat produces more than enough steam for the gas making process and all auxiliary operations; when propane is reformed, steam requirements are so great that the boilers must be fired with natural gas to supplement the waste heat for steam production.

The hydrocarbon gas feedstocks are passed through activated carbon beds to remove all sulphur so that it will not be present to reduce the catalyst's activity.

The unit is thoroughly instrumented for process indication, control, regulation, measurement and safety.

A more detailed description of various phases of operation follows (see flow diagram).

Natural gas, at about 1,040 Btu per cubic foot., arrives at the unit at about 150 psig. It is reduced to 35.5 psig, after which the flow splits to three uses: process gas (for gas making), process heating, and steam boiler auxiliary heating.

The activity of the reforming catalyst is adversely affected by sulphur compounds in the process gas, so all sulphur must be removed. This is accomplished by passing the natural gas over activated carbon about six feet deep in steel chambers, or drums, about five feet in diameter. From one to three chambers may be used in parallel. The carbon is reactivated by thorough steaming when necessary.

From the carbon drums, the natural gas passes through a Foxboro orifice meter, to the flow-control valve, to the flame arrester, and then to the mixing chamber where it is mixed with the proper quantities of steam and air.

The process heating fuel passes through a Foxboro orifice meter, to the safety-burner-controller, and then to the fuel burners.

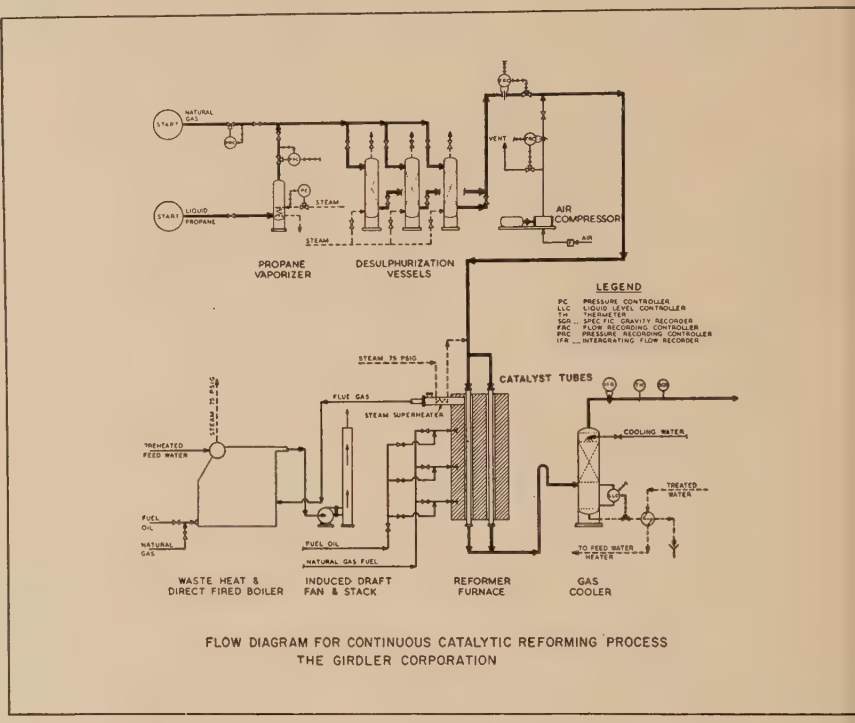
Natural gas is used as fuel in the steam boiler for (1) producing steam for starting production, and (2) firing the boiler continuously, in conjunction with waste heat from the process heating, when propane is reformed.

Feedstock propane comes as a liquid from the storage tanks to the gas making unit. It passes through a solenoid operated safely shut-off valve to a manually controlled and adjusted steam heated vaporizer, to a pressure controller, to the desulfurizing carbon drums, and then through the natural gas piping and controls to the mixing chamber.

For best operation and reforming results, the propane should contain less than 35 percent unsaturated hydrocarbons.

The operation on propane occurs when sufficient natural gas is not available. At such times the unit must be heated by burning fuel oil. Considerably more work and attention are required in this operation than with natural gas.

Process diluent air is used principally for controlling specific gravity. However, an additional benefit is obtained: heat is released inside of the catalyst tubes which effects an increase in the production capacity of the unit with no



FLOW DIAGRAM FOR CONTINUOUS CATALYTIC REFORMING PROCESS
THE GIRDLER CORPORATION

additional process heat being needed externally.

Air and steam for reforming

Process air is supplied at about 40 psig by an Allis-Chalmer, rotary type, motor driven compressor. The air passes through a Foxboro orifice meter, a flow-control valve, a flame arrester, and into the gas-air-steam mixing chamber.

In normal operation the steam is generated in a boiler by utilizing the waste heat from the products of combustion of the process fuel. The boiler is made by Babcock and Wilcox, and is rated at 18,000 pounds per hour.

The steam is generated at 115 psig. From the steam drum, it flows through a pressure regulator with 75 psig outlet; to a flow controller, to a superheater where it is heated to 1,000F by the waste products of combustion, and then to the gas-air-steam mixing chamber.

Other uses of the steam generated include steaming the carbon drums, heating propane (tracer) lines and the vaporizer, boiler feedwater deaerator, and oil atomization on the catalyst heating oil burners.

As mentioned previously, each unit has a number of burners arranged along the vertical walls of the combustion chamber. These burners can handle either natural gas or fuel oil. As natural gas passes through each burner, it inspirates its own air. When oil is used as fuel, steam is used to inspirate air for combustion, and this air atomizes the oil as it passes from the burners.

The burners are regulated manually to hold tube temperatures at about 1600F for normal operation with natural gas. Temperatures are read periodically with an optical pyrometer and 24 permanent thermocouples in the cell walls give constant records of temperatures throughout the combustion space.

An induced draft fan holds the pressure at the top of the combustion space to minus 0.1 inch of water pressure.

The products of combustion pass to the steam superheater, through the waste heat boiler, and thence to the stack.

The catalyst used is Girdler G-19 reforming catalyst, which contains approximately 20 percent nickel, in the form of ¾-in. cylindrical extrusions with an apparent gross density of 80 pounds per cubic foot.

The gas leaving the reforming tubes is cooled to 170F—200F when it meets an initial water spray in the outlet elbow and piping. Additional cooling to 100F is accomplished in a counter flow contact cooler about eight feet in diameter and 22 feet high, nearly filled with 2-inch ceramic Raschig rings. Water enters at the top, and the gas at the bottom. The hot water at the outlet is used for preheating the boiler feedwater.

A Worthington water treatment system utilizes the sodium zeolite principle, and consists of softener drums, regenerant tank, sand filters and coagulant feeders. Raw river water or purchased city water can be utilized.

Instrumentation

The entire unit is adequately instrumented. Flow meters are provided for recording the quantities of: steam—produced, used for gas making, and for auxiliaries; hydrocarbon gas—used for gas making, for heating, and for boiler fuel; process air; and reformed gas produced. The quantity of boiler feedwater flowing is indicated.

The recorders for process steam, process gas, and process air are also flow controllers. The controllers are operated by a standard instrument-air system, which is fully equipped for dehydration of the air and for the drying and reactivation of the drying material.

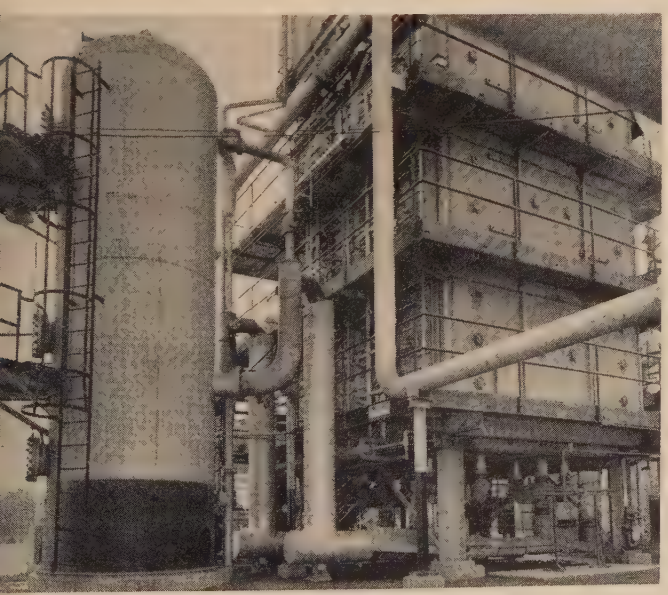
Indicating pressure gauges are provided for instrument air, city water, steam, and heating oil.

Two Leeds-Northrup 12-point recording temperature gauges make records of various temperatures throughout the entire unit.

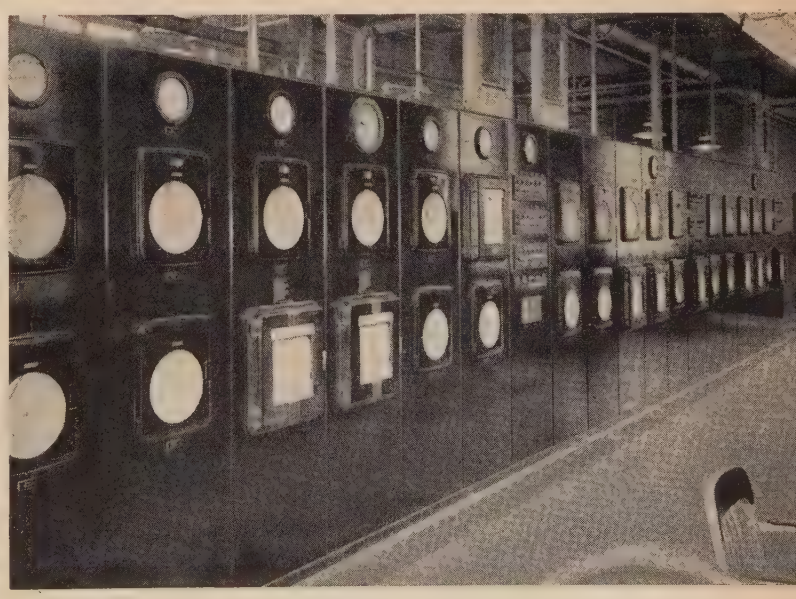
A Cutler-Hammer recording calorimeter provides a continuous record of the heating value of the gas produced in the unit.

The above instruments are mounted on a control board (see illustration) in the control building which also houses the process air blowers, feedwater treatment equipment, and other instruments such as Acme specific gravity recorders and Cutler-Hammer calorimeter units.

The entire unit is amply equipped



oseup of reformer unit shows operating levels, outlet ends and con-ections with reformer tubes under unit. At left is contact-cooler



Control panel in control building shows how all three units are adequately instrumented to provide continuous observation and record of gas process

with safety controls and trouble detectors. When conditions cause them to operate, red and white lights flash on the control board, and horns sound to attract the attention of the operators.

The gas making process is continuous and automatic.

When the tubes and the catalyst are at the proper temperature, the mixture of gas, steam, and air is passed from the mixing chamber to the top of the tubes, thence into the tubes and downward over the catalyst. As it passes over the catalyst, the mixture is broken down (or reformed) into the desirable gas, which then passes from the bottom of the tubes to the contact-cooler.

It is imperative that adequate quantities of steam be used to prevent the deposition of excessive amounts of carbon on the catalyst. The following are the minimum steam-to-gas ratios that must be held in the feedstock mixture:

	Ratio of Steam to Gas
a. Reforming natural gas, without air:	2.0 to 1.0
b. Reforming natural gas, with air:	1.5 to 1.0
c. Reforming propane, without air:	15.0 to 1.0

Representative analyses of the gas produced by this process are:

	Natural Gas		Commercial Propane
	With Air	Without Air	Without Air
H_2	56.9%	75.7%	72.9%
CO	11.8	13.9	9.9
CH_4	3.2	1.6	1.7
CO_2	7.6	8.2	15.5
N_2	20.4	0.6	—
O_2	0.1	—	—
Total	100.0%	100.0%	100.0%
Btu — Recorded	250	304	278
Calculated	251	302	279
Sp. Gr., Recorded	0.450	0.347	0.380
Calculated	0.486	0.327	0.392

Representative operating results for a single unit are as follows:

	Examples		
	No. 1	No. 2	No. 3
Gas Produced— Mcf per day	5,566	5,921	6,264
Heating Value— Btu per cu. ft.	249	257	259
Specific Gravity	0.449	0.470	0.472
Process Quantities—per Mcf of Reformed Gas Produced			
Natural Gas—therms	2.319	2.351	2.200
Air—cubic feet	18.8	23.9	23.3
Steam—pounds	18.8	15.3	14.7
Furnace Heating Natural Gas Therms per Mcf of gas produced	1.001	0.850	0.839
Boiler Fuel Natural Gas Therms per Mcf of gas produced	0.133	—	—
Over-all Efficiency	75.4%	80.3%	85.2%

Operation of the unit requires minimum personnel. Two men form a normal shift, and they can operate the three units for short intervals. However, an extra man is added per shift when the three units are to be operated for any length of time.

When the rate of gas produced is to be changed, the burners and flows can be readjusted and the operation stabilized in about one-half hour per unit. Large changes in rate are accomplished in smaller steps, each step requiring about one-half hour.

No by-products of any nature are formed. The gas as produced is clean and sulphur-free.

All effluent water from the process is clean and does not require any treatment before it is wasted to the river.

Since their installation, these units have been very satisfactory and have done well the job for which they were installed, which is to produce base load high nitrogen gas for mixing with natural gas.

The resulting sendout mixture gives satisfactory, "matchless performance" in appliances used by all customers of the Philadelphia Electric Company.

LeMay examines flame geometry as heat processing factor

MORE PRECISE automatic control of the shape of flames or of flame geometry is making the adaptation of heating processes to primary production lines increasingly practical. This was reported at the recent semiannual meeting of The American Society of Mechanical Engineers in Boston by R. C. LeMay, coordinator of sales. Selas Corporation of America, Philadelphia.

Optimum application of flame geometry was said to require separate and adequate control of fuel composition, fuel-air ratio, fuel-air mixture pressure at the burner, burner design, draft conditions, workpiece placement in relation to the burner, and duration of exposure. Five general burner types have been held under the precise control required in automatic production; the ribbon burner, the spear flame or needle burner, the round screen burner, the radiant ceramic burner, and the enclosed combustion burner.

Applications such as drying ink, removing moisture, preparing plastic surfaces for ink reception, and heating sections of glass tubes for forming were cited to illustrate the precision that has been attained in flame geometry. The author believes that many more heat processes can be moved into production lines and that liquid and solid fuel burners can be developed for a higher degree of time and geometric control.

Copies of Mr. LeMay's paper, No. 55-SA-10, may be obtained at 50 cents each from ASME, 29 West 39 St., New York 18, New York.

Oklahoma utilities sponsor unified highway sign program

LEADING OKLAHOMA natural gas utilities and LP-Gas utilities and dealers have joined hands in creating an effective highway sign program, blanketing the state with colorful signs that sell gas superiority.

Over 150 signboards in four fluorescent colors, seven feet high by 12 feet wide, are now promoting gas on the highways of Oklahoma. Each sign, with individually prepared copy and name of utility or dealer, has been installed in a strategic location. The program will extend for three years.

Spurred by Oklahoma Natural Gas Co., the program was started with an exhaustive survey and analysis of highway traffic promotions made by Beals Advertising Co., Oklahoma City. It was planned in volume to allow for decreased unit cost, and no central fund has been necessary in its establishment.

At a July 22 meeting of all participating companies, it was decided that it is preferable not to differentiate between LP-Gas and natural gas on the signs, since the reader's reaction to "Gas" will be interpreted in terms of his experience. Hal North, advertising manager, Oklahoma Natural Gas, suggested that standard identification of the fuel is important in overall promotion.

Glenn Springer, executive secretary, Oklahoma LP-Gas Association, expressed the pride of his association in setting a pattern for utilities throughout the nation. Gordon Jones, sales manager, United Gas Improvement Co., has already approved his company's acceptance of the plan to provide a springboard for an identical joint effort in Pennsylvania.

At present, sign locations include the following utilities: Burlingame Corp., Bartlesville; Northern Oklahoma Gas, Ponca City; Oklahoma Natural Gas, Tulsa; Southwest Natural Gas, Ada; State Fuel Supply, Oklahoma City; Tri-Cities Gas, Hartshorne; and Zenith Gas System, Alva.

Test new top burner controls

For the first time before a gas industry group, comparative tests were conducted on various types of thermostatic top burner controls. They proved overwhelmingly the practicability of this new device and advanced it to the point of sale on modern gas ranges.

This was demonstrated in a series of comparative top burner cooking tests conducted simultaneously on six cooking appliances that climaxed a meeting of the Matchless Gas Range Promotion Committee held on July 20 and 21 in Philadelphia.

The appliances consisted of four gas ranges of different brands, all equipped with a variation of the thermostatically controlled top burner, an electric range with its equivalent top burner control, and an electric automatic frying pan.

A large group of officials from gas utilities representing some nine million meters in the mid-Atlantic, mid-West and New England areas witnessed the tests. Richard Leusch, of The East Ohio Gas Co., chairman of the Matchless Committee, welcomed a delegation of American Gas Association representatives, headed by Chester S. Stackpole, managing director.

For three hours, in the Philadelphia Gas Works' auditorium at Broad Street and Erie Avenue, the six appliances were put to the test of supplying automatically controlled top burner heat to a wide variety of foods, at both high and low temperatures.

Frank H. Trembly, director of sales for the host company, opened the meeting by outlining the origin and development of thermostatic top burner controls. "We believe that the time has come," he said, "for us to finalize our top burner control arrangements. Rapid progress has been made in this field and PGW is planning to use top burner control with the slogan, 'Food Won't Burn,' as the main theme of its fall Matchless campaign."

"We have here today," he continued, "three ranges made by different manufacturers all using the B-J top burner control system made by the Robertshaw-Fulton Controls, Inc. This new control operates entirely with gas, as compared with the Robertshaw 'Thermal Eye' control which is electrically activated, and which is also represented on one of the demonstration ranges. An important performance factor with the all-gas top burner control is that there is no significant 'overshooting' at low temperature settings, and the throttling type action gives a uniform vessel temperature."

(All of the gas-operated thermostatic control burners incorporated a small, circular sensing unit in the center of the top burner that is held against the bottom of the cooking utensil by spring tension. This is controlled by an oven-type heat control dial on the front panel of the range. Any shape or size utensil can be used.)

"This type of top burner control on gas ranges has four big advantages: 1) There are no complicated parts, which means minimum servicing; 2) It permits maximum turndown—as low as 350 to 800 Btu per hour; 3) It gives best overall performance because of a complete range of cooking temperatures from 160° to 500° without any 'overshooting'; 4) It adds only about $20 to the retail price of the range."

Mr. Trembly recommended that markings on the top burner dial control be indicated from 160° to 425°, instead of numbered dial markings. "It is utterly futile," he said, "to attempt to prepare menus for top burner cooking with anything but true temperature readings in degrees F. shown. Housewives are used to reading recipes in degrees, and a departure from this long-standing habit would only lead to confusion."

Mr. Trembly than introduced Miss Janet Lappin, home service director of the Philadelphia Gas Works, who in turn presented six of her aides on the platform. There were nine simultaneous cooking tests performed on the respective appliances. The tests began with two low temperature operations. First the

Frank H. Trembly, director of sales, Philadelphia Gas Works, addressed audience during three-hour test of thermostatic top burner controls conducted on six cooking appliances. Girls from PGW home service department performed simultaneous tests on variety of foods

audience was shown the results of left-over mashed potatoes that had been re-heated from a cold start for one hour and ten minutes at 160°. After re-heating, they appeared light and fluffy. There was no discoloration, or evidence of the potatoes sticking to the pan.

Hollandaise sauce was prepared at a set temperature of 185° for one minute and 20 seconds. The results, as inspected by each member of the audience, showed a smooth and creamy texture. This operation was performed faster on the thermostatic control burner than on the regular "simmer" burner.

High temperature cooking came next, and bacon was fried at 325° for five to seven minutes. Results showed crisp, golden brown bacon with minimum shrinkage on the gas ranges.

Six fried eggs, one on each appliance, were soon sizzling at 300° for about one minute's duration. They emerged "sunny side up" in country-fresh style, without an undercrust, or darkened border, and practically greaseless.

Pressure cooking occupied the spotlight when potatoes were placed in the cookers and started at 350°. When 15 pounds pressure was reached (two minutes, 15 seconds) the heat was lowered to 225° for eight minutes. Pressure was easily maintained at this setting on the gas ranges. When finished, the potatoes were tested with forks by the audience and found to be tender throughout.

In the category of candy making, six skillets of peanut brittle were shown that had been cooked at 290° for 30 to 35 minutes. Here the gentlemen's tastes told them that the candy prepared on the gas ranges was crunchy and delicious with just the right "doneness."

The ever popular French fried potato was next on the list, in an interesting deep fat frying operation. Eight ounces of sliced Idaho potatoes per batch were first blanched for two minutes in boiling water. Then they were placed in fat that had been pre-heated to 375°. During the six- to seven-minute frying time, the temperature dropped to 300° and then rose to 350° before removal on the gas ranges. (If the fat is left on two to three minutes longer, the temperature would return to 375°, ready for another frying operation.) The results were sampled and found to be perfect. The potatoes cooked by gas were evenly done to a golden brown crispness, and were not fat soaked.

A griddle cooking test was next, showing how griddle cakes can be prepared in one to two minutes at 375°. A batch of four cakes was cooked on each range on an aluminum griddle that had been pre-heated for four minutes, then brushed with shortening. They were evenly browned on both sides, and had a soft, tender texture.

Finally, a delicate top burner cooking operation, pineapple upside-down cake, was presented. Previous tests showed that the cake gets charred on the bottom if not prepared at the right temperature. It was cooked on the top burner in a covered aluminum pan for 25 minutes then uncovered for five minutes, at 250° for a total of 30 minutes. The results—a tender and fluffy cake topped with golden brown pineapple—were sampled by the guests as a parting snack.

This same presentation was later staged for members of The United Gas Improvement Company properties, as well as manufacturers and distributors of gas ranges and heat controls. The consensus among all witnesses: Thermostatic control of top burners is now a practical reality and should become one of the gas industry's major promotional weapons before the year's end.

"After several months of testing," Mr. Trembly said, "we have come to the conclusion that this top burner control system will perform as well or better than any other thermostatic heat control device, regardless of fuel, and with the further advantages of lowest additional cost and a minimum of parts to permit easy servicing.

"We are convinced that our test work on this application has been so long and extensive that these units will perform satisfactorily in the field."

"McCall's" contest

(Continued from page 23)

for the national awards. *McCall's* will handle all the judging, first choosing national winners, then selecting the best local entries for areas conducting local contests.

In order to compete, an entrant is asked to draw a diagram picturing her kitchen as it is today, then prepare plans for a complete remodeling of her kitchen, and in addition submit a complete inventory of her present kitchen and/or laundry equipment, specifying by brand name exactly what new equipment she wants installed in her remodeled dream kitchen.

Results of the 1955 contest are expected to exceed by far those of a similar one conducted by the magazine in 1951. More than 150,000 entry requests were received for the 1951 contest, and better than 18,000 completed entries were submitted. This year, the magazine looks for well over 200,000 entry requests, and between 20,000 and 30,000 completed entries.

McCall's, in cooperation with A. G. A. New Freedom Gas Kitchen and Laundry Bureau, is offering utility companies a wide assortment of promotional materials. Available are sales floor displays, information and program materials for home service department promotions, suggestions for tie-ins with clubs and school groups, ad mats, art ideas, a recorded kitchen contest radio interview with *McCall's* houses and home furnishings editor, Mary Davis Gillies, newspaper publicity material, kits for retailers, and, of course, details on the sponsorship of the utility companies' own local sub-contests.

A five and a half minute TV film describing the contest and explaining the process of submitting an entry is being offered to women's TV programs all over the country. Prints of the film are also being made available to manufacturers and utility companies.

Manufacturers of 20 gas appliance lines, including Tappan, Bendix, Caloric, Universal, Dixie, Magic Chef, Norge, Perfection, RCA-Estate, Roper, Servel, Coleman, Ruud, Permaglas, Rheem, and Detroit Jewel, are offering to supply contestants with literature to help them draw up their plans and select their equipment. The literature is available on request, and the manufacturers' names and addresses are listed on the entry blank.

Banners, emblems, full color blow-ups of the magazine's September cover and of the editorial feature announcing the contest are being offered to both utility companies and appliance dealers.

The September issue features ideas for kitchen remodeling in an eight-page color spread announcing the contest. The October issue will lay stress on the newest ideas in laundry equipment. The contest will be promoted in the September, October, and November issues of the magazine, and entries will be accepted until the end of the year. Winners will be announced in early 1956.

Industry news

Expand Herscher storage facilities

WITH THE ENTERING of an order by the Federal Power Commission authorizing expansion of underground natural gas storage facilities at Herscher, Ill., Natural Gas Storage Company of Illinois has announced that it will begin work immediately on the $7,500,000 program. The program is designed to make more gas available to its parent company, The Peoples Gas Light and Coke Co., and to its 24 other utility customers during the next heating season.

Peoples Gas already has the approval of the Illinois Commerce Commission to offer space heating service to an additional 40,000 single family dwellings in Chicago. The utility asked for the authority contingent upon FPC authorization to expand the storage project.

Northern Illinois Gas Company has reported to the Illinois Commerce Commission that letters have been mailed to approximately 40,000 customers authorizing them to use natural gas for space heating under the terms of the commission's gas restriction order. Authorizations are issued only for single family dwellings, and are allocated between old and new homes on the basis of the number of unfilled requests pending in each category.

The approved increase in the peak-day delivery capacity of the Herscher field from 150 million to 430 million cubic feet will be accomplished by the construction of 31 miles of 36-inch pipeline to transport larger volumes of gas from storage to the market area; injection of more cushion gas into storage; and installation of a permanent gathering system to recover and return venting gas to the reservoir.

The new pipeline will transport stored gas from Herscher to a point on the line of Texas Illinois Natural Gas Pipeline Co., where it crosses the Illinois River south of Joliet. Natural gas transported from the Southwest by Texas Illinois is delivered to storage by means of an existing 30-inch pipeline 17 miles in length. Work on the project is expected to be completed in about three months, the storage company reported. The Herscher field now represents an investment of approximately $17,000,000.

"Further development of Herscher is a part of an aggressive program now being pursued by Peoples Gas and its subsidiaries to provide an adequate natural gas supply to meet the soaring seasonal demands of the Chicago area public," stated James F. Oates, Jr., chairman and chief executive officer of Peoples Gas.

"Despite some venting of gas, the successful commercial operation of the project during the last two heating seasons has been most encouraging. It is the opinion of supervising consultants that the field is a useful and valuable storage property.

"Natural Gas Storage Company personnel and outside experts are continuing investigations to ascertain the source of the venting gas, which is estimated to be about 6 million cubic feet a day, of which about 2 million is being returned to the reservoir by the pilot gathering system. In any event, the permanent gathering system, which will be installed early this fall, should return all of the venting gas to storage," Mr. Oates said.

Scranton-Spring Brook to buy part of UGI gas property

AN AGREEMENT has been reached by the Scranton-Spring Brook Water Service Company and The United Gas Improvement Company for the former to purchase the gas properties operated by The UGI in the City of Nanticoke and in 11 other municipalities in Wyoming Valley. This was reported in a joint statement by Rulison Evans, chairman of the board and president, Scranton-Spring Brook Water Service Co., and Charles E. Warsaw, vice-president, The United Gas Improvement Company.

These properties are now being operated as the Kingston gas district of the Luzerne Electric and Gas division of The UGI, with headquarters at Kingston, Pennsylvania. They provide gas service to more than 10,000 customers in Nanticoke city and Hanover township, and the boroughs of Plymouth, Larksville, Edwardsville, Kingston, Forty Fort, Swoyersville, Luzerne, Pringle, West Wyoming, and in Wyoming borough to the Exeter borough line. The agreement is subject to approval of governmental regulatory bodies.

Honor F. M. Banks

F. M. BANKS, president of the American Gas Association, has been named an honorary member of the Association Technique de l'Industrie du Gaz en France. The general assembly of this association nominated him for this honorary post at a congress in Strasbourg, the first week in July. Association Technique de l'Industrie du Gaz en France, with headquarters in Paris, is a member of the International Gas Union.

List corrosion books

SUMMARIES of 4,454 corrosion and corrosion prevention articles, books, and brochures are compiled in *Bibliographic Survey of Corrosion for 1950-1951,* the fourth in series published by the National Association of Corrosion Engineers. Literature is divided into eight major categories: general, testing, characteristic corrosion phenomena, corrosive environments, preventive measures, materials of construction, equipment, and industries. Each category is subdivided, and topical cross-references are appended to each section. The 430-page bibliography costs $10.00 for NACE members, $12.50 for non-members. NACE address is 1061 M & M Building, Houston 2, Texas.

Well-planned kitchen aids handicapped

Attractive all-gas kitchen aids in teaching handicapped homemakers to run their homes with minimum effort. Above, Instructress Gertrude Merrill, Massachusetts Heart Association, explains work ease afforded by proper placement of appliances to: cardiac patient, double amputee, paraplegic. First step in training was A.G.A.'s Heart Saver Kitchen film. Over 800 physicians and instructors attended pictured demonstration at National Rehabilitation Association convention; 200 later examined equipment

Hollywood Bureau offers ad mats, package picture service

STARRING roles in Universal-International's new film, "Female on the Beach," are assumed by Joan Crawford, Jeff Chandler, and a glamorous all-gas kitchen. The American Gas Association Hollywood Bureau now offers utilities advertising mats of a scene from this film.

The mat, showing the Servel gas refrigerator and Roper built-in gas range used in the film, comes in two sizes. The charge is $4.50 for a four-column 12-inch mat, and $3.00 for a three-column nine-inch mat.

Also available from the Hollywood Bureau is a new "package picture service," containing a set of five glossy prints, eight by ten inches. The entire set of stills, priced at $5.00, has been cleared for all publicity uses.

Contained in the set are prints of the following: John Wayne by gas range in his home; Shirley Jones and Gordon MacRae by gas refrigerator used for film storage for MGM's "Oklahoma"; Joan Crawford and Jeff Chandler by built-in gas range in scene from "Female on the Beach"; June Allyson by gas refrigerator used in "The McConnell Story"; and Robert Cummings and Rosemary DeCamp by gas range in scene from "The Bob Cummings TV Show."

For mats or prints, write to A. G. A. Hollywood Bureau, Box 3249, Terminal Annex, Los Angeles 54, California. The telegraph address is 830 Flower Street, Los Angeles.

SGA accounting round-table covers transmission, distribution

THE RECENT Southern Gas Association Property Accounting Round-Table in Tulsa, Okla., was attended by 37 representatives from 21 SGA member companies.

The sponsor of the conference, R. R. Allen, Oklahoma Natural Gas Co., divided the agenda into three major categories: general, transmission, and distribution. Discussion leaders were: A. H. Bue, Oklahoma Natural Gas Co., general; John Wendel, Tennessee Gas Transmission Co., transmission; and John Meek, Oklahoma Natural, distribution.

Topic headliners included plant accounting problems in relation to accelerated depreciation; pricing and accounting for sale of a partial tract of real estate; retirement units of gas and oil field properties; and accounting for meter and regulator installation costs.

Wisconsin accounting section holds three-day meeting

THE ACCOUNTING SECTION, Wisconsin Utilities Association, met at Lake Delton, Wisc., recently to discuss local and national issues affecting the association. Major topics were the future of natural gas in Wisconsin, the preference clause, economic conditions and business prospects, atomic energy, and customer relations. Eight round-table discussions were held during the three-day session.

Fred O. Harbrecht, assistant to the vice-president and controller, Wisconsin Electric Power Co., was elected chairman. J. C. Berg, Lake Superior District Power Co., was elected vice-chairman.

Carl J. Forsberg, president, Wisconsin Utilities Association, and president, Wisconsin Power and Light Co., spoke on the advent of automation.

Los Angeles Home Show displays feature all-gas appliances

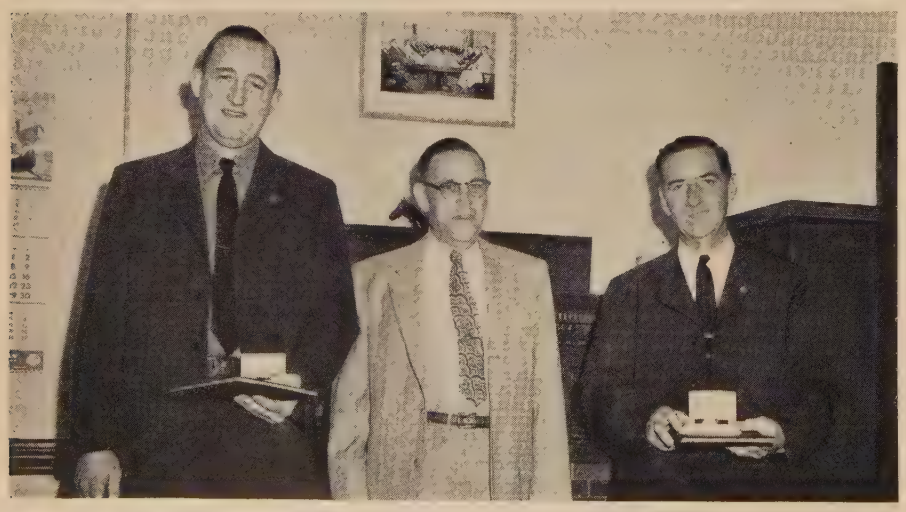
AN AUDIENCE of over 200,000 at the tenth annual Los Angeles Home Show was captivated by the circular "Home with a Heart," with its circular nucleus, a New Freedom Gas Kitchen. Special construction provides for both visual and conversational contact between this kitchen and surrounding living, dining, and sleeping areas. The 1600 square foot home is so functionally designed that it is particularly recommended for handicapped persons.

A second model home at the show was constructed and designed by students of Pasadena City College, under the sponsorship of Southern California Gas Co., Southern Counties Gas Co., and the Pasadena-San Marino Chapter of the Building Contractors Association. This home and the two model apartments displayed, were also all-gas equipped.

The Natural Gas Bureau participated in the home show with an exhibition of six built-in oven and broiler units with companion counter-top burners, a complete all-gas display kitchen, a series of deluxe free-standing ranges, and full-color transparencies of actual kitchens in many Southern California homes.

In addition, the eight participating gas range manufacturers had booths featuring both built-in and conventional equipment. Water heating and heating manufacturers displayed new equipment stressing modern design and performance.

Two win PGW meritorious service award for lifesaving



H. Sulzer (l.) and G. Campbell (r.) received PGW Meritorious Service Award from T. S. Lever, Philadelphia Gas Works general manager. During company call, Mr. Sulzer found woman unconscious at her home, applied artificial respiration until breathing was restored. Mr. Campbell observed three-year-old boy tumble into Delaware river. He rescued boy from 30-foot water, performed resuscitation

GEORGE S. CAMPBELL and Harold Sulzer, Philadelphia Gas Works division, The United Gas Improvement Co., recently were presented with the PGW Meritorious Service Award, the highest honor bestowed by the utility. Each man also received an engraved gold watch. The presentations were made by General Manager T. S. Lever, who commended the men for use of superior judgment in saving human lives.

Establishment of PGW's Meritorious Service Award dates back to 1946 when it was decided to recognize exceptionally meritorious deeds or services of employees.

The award may be granted for: (1) an outstanding contribution to the company's operating practice in any phase of manufacturing, service or other business activity, (2) extraordinary heroism, (3) superior use of judgment and effort in order to save human life, and (4) exceptional presence of mind in the maintenance of gas service to customers or prevention of damage to property. A total of 31 awards have been given to employees.

Home economists attend Pennsylvania TV workshops

Barbara Lang, Manufacturers Light & Heat home economist, gives self-prepared TV demonstration before cameras in Pennsylvania State studio

These home economists from Pennsylvania gas companies comprised one of four TV workshop groups which studied techniques during summer

A SERIES of TV workshops was held on the campus of The Pennsylvania State University this summer at the request of several Pennsylvania gas companies. Mary Brown Allgood, associate professor of the College of Home Economics, conducted the program which was planned to give gas company home economists instruction in the techniques necessary for the presentation of television demonstrations.

The four workshops, lasting one week each, were limited in enrollment to eight people each.

Twenty-five of the 32 enrolled were home economists from Manufacturers Light and Heat Co., United Gas Improvement Co., of Philadelphia, Harrisburg, Allentown, Reading and Lancaster, the Cumberland and Allegheny Gas Co., Equitable Gas Co., Scranton-Spring Brook Water Service Co., Keystone Gas Co., and Binghamton Gas Works. The other seven enrollees were high school home economics teachers.

During each workshop every member of the group had actual experience in planning demonstrations and performing before the camera. In preparation for the workshop each person in the class was asked to plan a 15-minute platform demonstration. These were given as they would be before a group of women or a high school class.

Each demonstration was then discussed by the instructor and the group, and changes in techniques necessary for TV presentation were suggested. With these specific changes in mind, each member of the group gave a 15-minute and a 30-minute demonstration before the camera. Group discussion, led by the instructor, followed the TV performance, and further improvements were suggested.

The demonstrations were televised by means of a closed circuit set-up. A "monitor" made it possible for the demonstrator to view her own presentation of close-up shots. A receiver set was placed in another room in the building which made it possible for the groups to view the demonstration as it might be received in the home.

Electronic computers simplify gas flow calculations

THE USE of high speed electronic computers to chart the flow of natural gas in a city's intricate network of underground piping is resulting in improved service for the nation's gas consumer.

This was concluded by a group of gas utility engineers and computer experts from across the country who met in New York last month under the sponsorship of *Gas* magazine, an industry trade publication, for one of a series of symposia on the use of so-called "giant brains" in the gas industry.

The group discussed methods by which high speed electronic computers may be substituted for the time-consuming "slide rule" methods of making gas flow calculations. Those companies already using computers reported that with the newly developed high speed procedures they have been able to expand their service areas more rapidly, and to assure present customers of a more constant year-round supply of fuel.

It was pointed out that with the help of computers, gas engineers can predict the effect load growth, at any given point in a city's gas system, will have on pressure at any other point. Knowing this, gas pressures and flows can be adjusted for maximum efficiency.

Among those attending the meeting were representatives of Brooklyn Union Gas Co., Brookyln; Public Service Electric & Gas Co., Newark; Laclede Gas Co., St. Louis; Peoples Gas Light & Coke Co., Chicago; and Consolidated Edison Company of New York.

Sixteen representatives of utilities and electronic computer firms were present.

Shareholders approve Seattle-Washington November merger

SHAREHOLDERS of Seattle Gas Company and Washington Gas & Electric Company have voted overwhelmingly in favor of merging the two companies. Results of shareholder voting at special meetings at Seattle and Tacoma were announced jointly by Walter S. Byrne, president, Seattle Gas Company and Allen Peyser, president, Washington Gas & Electric. The name of the new company will be Washington Natural Gas Company.

Shareholders of Washington Gas & Electric Company approved an increase of the company's authorized capitalization to one million shares of $10 par value common stock. Subject to Washington Public Service Commission approval, the action will permit the issue of additional common stock from existing capital surplus on the basis of one and one quarter shares for each share outstanding.

The increased authorized capital will provide necessary shares required to be exchanged for shares in the new company. Shareholders of both companies will exchange for shares in the merged company on a one to one basis.

At a separate annual meeting, Seattle Gas Company shareholders unanimously reelected all incumbent directors who in turn elected the following officers: Walter S. Byrne, president; Charles M. Sturkey, executive vice-president and general manager; Norbert O. Fratt, vice-president, sales and merchandising; Almon Ray Smith, secretary; Howard Kroehl, comptroller and assistant secretary; Richard D. Smith, treasurer and Leland E. Jones, division manager and assistant treasurer. All officers will serve until November 1.

Round-Up hero

Hollywood's John Wayne (r.) is currently starring as hero of the Old Stove Round-Up campaign. Above, he expresses pleasure with his all-gas kitchen to A. G. A.'s Pat Nicholson. Gas equipment was provided for his new home by A. G. A.

Manufacturers announce new products

● Coleman Co., Inc., has added four new thin, space-saving gas-fired furnaces to its Blend-Air heating line. Both upflow and downflow models with capacities of 80,000 Btu (dimensions 14″ x 60″ x 28″) and 100,000 Btu (20″ x 60″ x 28″) are now in production. Tight casing construction, heat exchanger design, adjustable direct drive blower, enable the thin furnaces to be used with the manufacturer's 3½ inch pre-engineered ducts as well as all conventional type distribution systems. Thermostat, fan and limit control, 100 percent safety pilot, and pressure regulator are standard equipment.

● The Flexi-Flame Burner, manufactured by the Patrol Valve Co., Cleveland, is formed with special dies from corrosion-resistant, nickel-bearing stainless steel. The standard size, 1¼ inches in diameter, has a Btu range from 9,000 to 500; the giant size, 1¾ inches, has a 12,000 to 650 Btu range. Complete set of four weighs approximately 2½ pounds. Burner head is fastened to venturi tube assembly by a bayonet lock. It has one venturi, one valve.

● Carlisle Gas Burner Equipment, Millville, N. J., reports that its new Carlisle GAO ribbon burner, for use in glass working and other operations where high temperatures are required, is surface mixed with the gas and will not flash back. It can be used with gas and air, or a combination of gas, air, and oxygen. The burners, which operate with all types of gas, can be ordered in lengths up to 24 inches of flame space, and in the following widths: 9/16, 1, 1 7/16, and 1⅞ inches.

Form engineering-consulting firm

CAMERON AND JONES, a newly-formed engineering and consulting firm situated at Englewood, Colorado, will specialize in oil shale technology. Officers and associates of the firm were formerly senior staff members of the U. S. Bureau of Mines oil-shale experiment station at Rifle, Colorado. The company offers services in process design, process development, economic evaluation, plant engineering, plant operation, and general consultation. Officers are Russell J. Cameron, John B. Jones, and Arthur Matzick.

Christmas appliance promotion offers tie-in opportunities

IN VIEW of the success of last year's "Operation Snowflake," U. S. Steel Corporation will again initiate an industry-wide Christmas promotion of major appliances, using the slogan "Make It a White Christmas—Give Her a Major Appliance."

U. S. Steel and the American Gas Association will offer dealers, manufacturers, and utilities the opportunity of tying in local advertising in all media with this large-scale promotional campaign. American Gas Association will emphasize Christmas sales of gas refrigerators, dryers, heaters, and ranges. Newspaper mats for local distribution by utilities are available through A. G. A. Also available from the Association is a display kit, priced at $5.90, containing cellophane packages for appliances, a poster, an easel card, Christmas balls, and pennants, all carrying the gas message.

Complete advertising kits will be distributed to retailers, utilities, banks, and distributors by U. S. Steel. The corporation has scheduled advertising in 238 newspapers, five commercials on CBS-TV, and full-page advertisements in various magazines including *Saturday Evening Post* and *Farm Journal.*

Gas kitchens attract 12,000 to Houston Natural's cavalcade

Tabletop display at Houston Natural Gas System's "Cavalcade of Kitchens" features intriguing miniature town showing the utility's complete operations from production to final distribution. Pipeline companies and suppliers donated meters and fittings. Locale was Houston's Shamrock-Hilton Hotel

TOP BILLING at Houston Natural Gas System's "Cavalcade of Kitchens" went to ten full-size "dream kitchens" replete with such modern equipment as disappearing ironing boards, island sinks, built-in playpens, and concealed planning desks. The utility's objective was to place modern gas appliances in striking surroundings and to solidify built-in equipment as a fundamental of good kitchen planning.

Over 12,000 people attended the four-day cavalcade at Houston's Shamrock-Hilton Hotel, approximately one-third of whom bought advance sale tickets. The record crowd showed great interest in the all-gas kitchens. Eight of the kitchens had built-in ranges; seven had adjacent laundry areas with gas clothes dryers or gas Duomatics; two displays included gas water heaters; one contained a gas disposal.

Added attractions included give-away prizes of one domestic and one commercial kitchen; 50 exhibits by segments of the kitchen trade; a daily one-hour cooking school; lectures by a color consultant; and radio's former Dr. IQ to distribute 50 silver dollars daily for correct answers to appliance questions.

Complete engineering for Cascade Natural construction plan

ENGINEERING for Cascade Natural Gas Corporation's new construction program in 23 Pacific Northwest cities has been completed and initial specifications for bids on materials were sent out in August.

In announcing construction plans, President Stewart Matthews said a time schedule has been created for the construction of the company's natural gas distribution system in each of its cities, divided into eight general areas, with 30 individual projects.

"In the nine months following next October 1, we plan to spend between 10 and 12 million dollars on materials and labor. This initial expansion, to serve our franchised areas and industries adequately, should be completed coincidentally with the arrival of natural gas next year," Mr. Matthews said.

Cascade is franchised to serve Anacortes, Bellingham, Bremerton, Burlington, Clarkston, College Place, Grandview, Kennewick, Port Orchard, Prosser, Shelton, Sunnyside, Toppenish, Walla Walla, Wapato, Wenatchee, Yakima and Zillah in Washington state; Eugene, Pendleton and Springfield in Oregon; and Lewiston, Idaho. Cascade anticipates serving ten additional Northwest cities.

New Jersey Natural discloses increase in meter installations

DALE B. OTTO, president, New Jersey Natural Gas Co., announced that the firm has experienced a 15 percent increase in the number of meters it has added to its lines in the past three years.

Mr. Otto made the disclosure in a report on the company's progress since it acquired the gas properties of the Jersey Central Power & Light Company in June, 1952.

The utility president also predicted an optimistic future for the Shore area, citing the growth in the past several years and the continued building activity in both residential and industrial fields.

He pointed out that the company installed its 115,000th meter recently for a 15 percent rise. He also said that the 20,000th heating customer was recently added to the company's lines for a 100 percent increase in that field and that in the same three year period the sale of gas has increased 43 percent.

Utility accounting students present plaque to Rodey, Toder

MEMBERS of this year's public utility accounting course at Consolidated Edison Company of New York, Inc., presented course instructors B. S. Rodey and Emanual Toder with bronze plaques in recognition of their excellent leadership.

The course, attended by approximately 25 company members, covers 20 two-hour sessions, and is conducted by a committee of which Mr. Toder is chairman. Subject matter includes all aspects of public utility accounting, particularly as related to Con Edison problems.

Mr. Rodey, assistant secretary, and Mr. Toder, assistant controller at Con Edison, are well known for their services to the American Gas Association. Mr. Rodey is former chairman of the Accounting Section, a member of the Managing Committee, and of the Steering Committee on Electronics. Mr. Toder, also a Managing Committee member, is chairman of the Subcommittee on Application of Accounting Principles. Mr. Rodey co-authored the textbook used in Con Edison's course.

Booklet summarizes public utility rate cases, 1915-1954

THE NEWLY REVISED *Public Utility Rate Cases,* which includes decisions from 1915 through 1954, has been expanded in scope to provide more complete coverage of the return aspect of utility rate cases.

The purpose of the booklet is to summarize the factors considered by the various state and federal regulatory agencies in fixing return allowed in public utility rate cases. The 930 digests of cases indicate the return allowed and the amount and type of rate base as designated in the orders or opinions. Comments are included to provide a more complete understanding of the various factors considered by the commissions and courts in determining rate base and allowable return. Source data include *Public Utility Reports* and other case reprint services dealing with public utility cases.

For a complimentary copy, write to Arthur Andersen & Co., 120 South LaSalle Street, Chicago 3, Ill.; or contact one of the firm's 18 offices in leading cities throughout the country.

Infra-red radiant gas heaters increase winter business

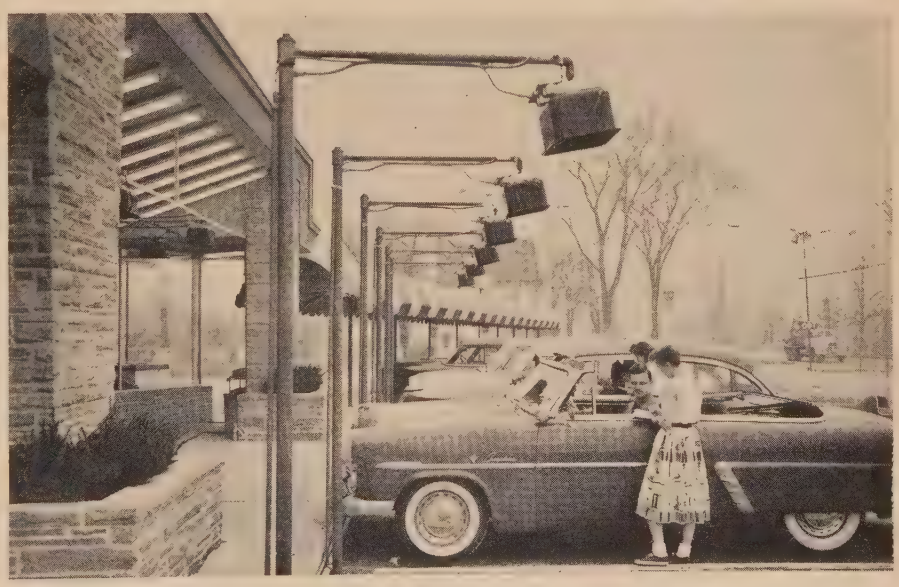
NEW INFRA-RED radiant gas heaters, now produced by Perfection Industries, Inc., operate on all types of gas and lengthen the profit season for outdoor business, or permit year-round outdoor construction.

The heaters warm up instantly, and do not raise air temperature. They are reported to have a practically unlimited life span, as only the surface of the ceramic catalysts reaches high temperature. Heat may be directed to any area.

The pictured units are natural gas installations with piping permanently in place, directing heat over an area of 80 to 100 feet. Called the Infra Rayhead Gas Heater, this type of heater can be used as a self-contained portable unit, holding a standard 100-pound or smaller LP-Gas cylinder, sufficient for 50 to 100 hours of operation.

Perfection plans to manufacture these heaters in all sizes, including the midget Infra-Baby, for porches, patios, and therapeutic heat. The firm will distribute the heaters through a license from the American Infra-Red Radiant Co., under the Schwank German patents.

The heaters are now in use in Europe.



"Hot" cars are no novelty at Milwaukee's Fiesta Drive-In restaurant, where 50 overhead gas heaters provide year-round warmth for both patrons and car hops. Infra-red radiant heaters operate on all types of gas; they heat only objects which cross their rays, thus do not increase air temperatures

Highlights of cases before Federal Power Commission

Bureau of Statistics, American Gas Association

Certificate cases

● **Cities Service Gas Company:** The FPC has authorized Cities Service Gas Company to abandon and remove approximately 41 miles of pipeline, and to construct about 39 miles of new line principally as replacement facilities in Newton, Lawrence, Lafayette, and Johnson counties (Missouri), and Johnson county, (Kansas). Cities Service said that the proposed abandonment, replacement and new construction are required to meet the increasing demands of its present utility customers. The estimated cost of the project is $1.7 million.

In another action involving Cities Service, the FPC granted authority to company to construct 93 miles of 26-inch pipeline extending from a point in Kay county, Okla., to a point in Montgomery county, Kan.; and a new 2,700 horsepower compressor station in Woods county, Oklahoma. Company will also construct approximately 145 miles of pipe in a gas gathering and transmission system in Woods county, Okla., and Barber county, Kan., connecting a new gas supply in Barber county with the proposed new compressor station.

The proposed construction will enable Cities Service to increase the daily capacity of the company system by 50 million cubic feet of natural gas in 1955 and 100 million cubic feet thereafter. The estimated cost of the project is $8.4 million.

● **Montana-Dakota Utilities Company:** The FPC has authorized company to construct approximately 44 miles of pipeline and 1,090 horsepower in compressor capacity on its natural gas transmission system in Montana, South Dakota and Wyoming. The company plans to lease and operate an additional 880 horsepower compressor unit to be installed by Montana-Wyoming Gas Pipe Line Company in its Worland compressor station in Washakie county, Wyoming. The estimated cost of the facilities to be built by Montana-Dakota is $1.4 million and those to be built by Montana-Wyoming is $523 thousand.

● **Ohio Fuel Gas Company:** The FPC has granted authority to the company to construct about 19 miles of 16-inch pipe in Hardin and Allen counties, partially paralleling an existing line and connecting it with a proposed metering station at Lima. The proposed facilities will enable Ohio Fuel to increase its daily capacity by 14.3 million cubic feet and to deliver additional gas to West Ohio Gas Company at Lima. Ohio Fuel also will sell up to 12 million cubic feet a day on an interruptible basis to the new petro-chemical plant of Standard Oil Company of Ohio at Lima. The cost of this construction is estimated at $792 thousand.

● **Southern Natural Gas Company:** The company has filed an application with the FPC requesting authorization for the construction of approximately 39 miles of loop lines with additional 4,950 horsepower in two existing compressor stations. In addition, the company proposes to replace 5.5 miles of pipeline near Atlanta, Ga., and construct 5.3 miles of pipeline to connect existing facilities with a new gas supply from the Patterson Field, St. Mary Parish, Louisiana. The estimated cost of the proposed project is $2.2 million and is dependent upon approval by the FPC of an application by United Gas Pipe Line Company for authority to sell 50 million cubic feet of gas a day to Southern.

● **Texas Eastern Transmission Corporation** and **Texas Eastern Penn-Jersey Transmission Corporation:** These corporations have received temporary authorization from the FPC to construct natural gas facilities costing an estimated $5.4 million. Penn-Jersey, a subsidiary of Texas Eastern, will construct and lease to the parent corporation two 5,000 horsepower gas turbine centrifugal stations, one in Juniata county and one in Dauphin county, Pennsylvania. Estimated total cost of the two stations is $2.8 million. Texas Eastern is to construct and operate a 3,300 horsepower compressor station at its Linden, N. J., station; 10 miles of loop line in Montgomery, Pa.; and about one mile of pipe near Chester, Pennsylvania. Total estimated cost is $2.6 million.

● **Transcontinental Gas Pipe Line Corporation:** The company has applied to FPC for permission to construct approximately 27 miles of loop lines in the states of Louisiana, Georgia, North Carolina, Virginia and Maryland. The company desires to use the facilities to transport an additional 10 million cubic feet of gas per day for Sun Oil Company on a firm basis. Estimated cost of the project is $3.4 million.

● **Trunkline Gas Company:** The FPC has granted temporary authorization to the company to construct eight new compressor stations and 24 miles of pipeline on its natural gas transmission system in Texas, Louisiana, Mississippi, Tennessee and Illinois. the new facilities would increase the peak day capacity of Trunkline's system by 85 million cubic feet, from 290 million to 375 million. Trunkline proposes to sell 80 million cubic feet of additional gas to its parent company, Panhandle Eastern Pipeline Company. The estimated total cost of the project is $17.7 million.

Rate cases

● **United Gas Pipeline Company:** FPC Presiding Examiner Samuel Binder has filed a decision, subject to review by the Commission, in which he ruled that Mississippi River Fuel Corporation is not entitled to separate rates, as opposed to rolled-in rates, for natural gas purchased from United Gas Pipe Line Company. The decision directs United to make a filing within 20 days to eliminate the two-rate schedules now applicable to Mississippi and which will apply to the company a single rate schedule.

The FPC in an opinion and order issued last November 2 approved proposed rates which reduced United's total jurisdictional revenues by $6.2 million per year, but left for future determination the final decision on rates applicable to Mississippi. Mississippi River Fuel claimed that it was entitled to separate rates as opposed to the rolled-in rate reflected by the settlement agreed to by all parties except Mississippi at hearings prior to the November 2 decision.

Presiding Examiner Binder declared that the continued existence of two rate schedules for United's sales to Mississippi would constitute maintenance of an unreasonable difference in rates and charges for the same service at the same delivery point, contrary to provisions of the Natural Gas Act. In ordering the new filing by United, Presiding Examiner Binder said that it would eliminate unjust, unreasonable and unduly discriminatory rates to Mississippi and would apply to that company the same rates which are now applicable to all of United's other pipeline customers in its central rate zone.

The Federal Power Commission in recent actions exempted five more utility companies from regulation under the Natural Gas Act pursuant to terms of the Hinshaw Amendment. The five newly-exempt companies are: Bowling Green Gas Co., Missouri Edison Co., Missouri Power and Light Co., Missouri Utilities Co., and the Permian Oil and Gas Company. The FPC now has exempted fully or partially a total of 74 companies.

IGU Vocabulary Commission plans multilingual dictionary

THE VOCABULARY Commission of the International Gas Union held a two-day meeting in July, at Zurich, Switzerland, to outline an international dictionary. A majority of the commission's members attended.

The 2,000 word dictionary will contain only terms peculiar to the gas industry. Many of the words have other meanings, the more common usage of which would appear in a non-technical dictionary, to the confusion of translators. Consequently, this publication will greatly facilitate the work of gas industry writers and editors of all countries.

The dictionary will be divided into various languages, and subdivided into gas industry operations. Illustrations will be used for words which have no synonyms in languages to which they have been translated.

A.G.A. announces new publications during July, August

LISTED BELOW are publications released during July and August, and up to closing time of this issue of the MONTHLY. Information in parentheses indicates the audiences at which each publication is aimed.

ACCOUNTING

• **1955 Proceedings of National Conference of Electric and Gas Utility Accountants** (for accountants). Available from A. G. A. Headquarters. Charge to members is $5.00; non-members, $7.50.

GENERAL MANAGEMENT

• **Descriptive Bibliography—First Annual Conference General Management Section.** Prepared by and available from A. G. A. General Management Section. No charge.

RESEARCH

• **Supercompressibility Tables for Natural Gas** (for natural gas industry producers, transmission companies, and distribution companies). PAR Pipeline Research Project NX-7. A six-volume series, for the following pressure ranges, psig: Volume I, 0-500; Volume II, 500-1000; Volume III, 1000-1500; Volume IV, 1500-2000; Volume V, 2000-2500; Volume VI, 2500-3000. These books are available from A. G. A. Headquarters. The charge is $12 each for Volumes I, II, III; $15 each for Volumes IV, V, VI.

• **Tables for the Determination of Supercompressibility Factors for Natural Gas Containing Nitrogen and/or Carbon Dioxide** (for natural gas industry producers, transmission companies, and distribution companies). PAR Pipeline Research Project NX-7, Volume VII. Available from A. G. A. Headquarters for $12.

RESIDENTIAL

• **Gas and the New Home Market** (for builder contact men). Obtainable from A. G. A. for 25 cents.

STATISTICAL

• **Gas Data Book** (for gas companies for distribution to employees; financial houses for distribution to clients). Available from A. G. A. Bureau of Statistics. First copy 50 cents; each additional copy 25 cents.

• **1955 Gas Facts—1954 Data** (for gas companies, market researchers, financial institutions). Prepared by Bureau of Statistics; free of charge.

• **Gas Requirements and Supplies of the Gas Utility and Pipeline Industry Annual 1954-1958, Peak Day 1954-1955 to 1958-1959** (for gas companies, financial institutions, appliance and steel pipe manufacturers). Can be obtained from Bureau of Statistics for $2.00.

• **Monthly Bulletin of Utility Gas Sales—June 1955** (for utilities, financial institutions). Available from Bureau of Statistics, free.

• **Quarterly Report of Utility Gas Sales—First Quarter 1955** (for utilities, financial institutions). Available from Bureau of Statistics, free.

Ohio Fuel Gas district wins A.G.A. safety merit award

DISTRIBUTION DISTRICT No. 2, The Ohio Fuel Gas Co., was awarded the American Gas Association safety merit award, and the Sandusky Safety Council merit award for outstanding achievement in accident prevention during the past three years.

The 179 employees in the district have attained a record of working from June 12, 1952 to February 26, 1955, over a million man hours, without a disabling accident. The men have since continued their safety record.

H. C. Heflinger, district manager, expressed his appreciation of this achievement in a letter sent to each employee in the district.

Australian home service director visits United States

STARTING on the West Coast and proceeding east, Clare Davis, home service director, Australian Gas Light Co., visited home service departments of many major gas utilities in her six-week tour of the United States.

She reports that she was very pleased with the hospitality accorded her, and was particularly interested in television techniques for food preparation, demonstration, etc.

Clare Davis, who is now in London after having spent time in Montreal and Scotland, stated that she has found a great similarity in utility home service departments all over the world. Her staff of 28 girls engages primarily in teaching cooking classes, offering demonstrations, and making home calls in their metropolitan area.

Revives woman, wins McCarter medal

An A.G.A. McCarter medal for lifesaving is presented to E. L. Anderson (r.), commercial representative, Central Hudson Gas & Electric Corp., by the firm's president, E. R. Acker. Mr. Anderson performed artificial respiration by back pressure-arm lift method for 30 minutes on woman from Poughkeepsie

Reprint report

A SECOND PRINTING of A. G. A. Gas Measurement Committee Report No. 3, *Orifice Metering of Natural Gas,* was made in July, following complete sellout of the 3,000-copy first edition.

The second printing is an exact duplication of the first, except for the inclusion of several additional values in the tables of "b" values for Reynolds number factor determination, as shown below.

"b" Values for
Reynolds Number Factor Determination

Orifice (inches)	Meter tube (inches)	Flange taps	Pipe taps
.250	2.626	.0979	.1078
.250	2.900	.0999	.1078
.250	3.068	.1010	.1080
.250	3.152	.1014	.1081
.250	3.438	.1030	.1084
.250	3.826	.1047	.1087
.375	3.826	.0894	.0932
.250	4.026	.1054	.1091
.375	4.026	.0907	.0939
.500	5.189	.0852	.0862
.500	5.761	.0880	.0883
.500	6.065	.0892	.0895

PG&E names Sibley, Gros, vice-presidents; McCollum, ad manager

PACIFIC GAS and Electric Co., San Francisco, announces the recent elevation of three company executives.

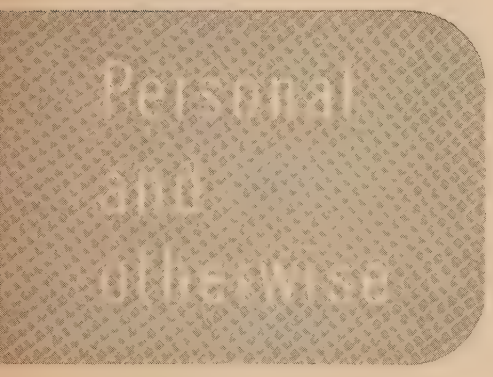
Shermer L. Sibley, an engineer and assistant to the president, was appointed vice-president and assistant general manager of the company. Robert R. Gros, manager of advertising and publicity, was appointed vice-president, with responsibility for informational activities and special assignments by the president. A. James McCollum, news bureau chief, succeeds Mr. Gros as advertising and publicity manager.

Following graduation from University of California, Mr. Sibley was employed by Pacific Gas and Electric Company as a mapper and estimator at Napa, where he engaged in electric voltage and load studies. In 1938 he was transferred to the department of electric operation and maintenance in the company's general office in San Francisco. In 1946 he was promoted to the general office as an office assistant in the department of the vice-president and general manager.

Mr. Gros joined Pacific Gas and Electric Company in 1937 and became manager of advertising and publicity in 1944 at the age of 29. He is past president of the Advertising Association of the West and of the San Francisco Advertising Club. He is a national director of the Public Utilities Advertising Association, and an officer or member of a score of other professional and civic organizations.

A University of California graduate, Mr. McCollum joined the advertising and publicity staff in 1946, and soon became the department's news bureau chief, directing the servicing of press inquiries about the company's greatly expanded activities and construction program.

All three men are members of the American Gas Association.



Nils T. Sellman retires from Con Edison

NILS T. SELLMAN, noted for his work in gas utilization, retired last month from his post as vice-president of sales, Consolidated Edison Company of New York, Inc. He has been employed by the utility successively as test engineer of gas appliances, engineer of utilization, assistant secretary, director of sales and utilization, and assistant vice-president of sales.

For four years Mr. Sellman was vice-president of the former Westchester Lighting and Yonkers Electric Companies.

A leader in American Gas Association activities, Mr. Sellman played an important part in the evolution of the CP gas range, and won the A. G. A. Distinguished Service Award in 1929 for his contributions to the development and sales promotion of gas appliances.

Mr. Sellman has served the Association in the capacities of service engineer; assistant secretary-manager, devoting considerable time to the formation of the Laboratories; director, 1937-1942; and chairman, Testing Laboratory Managing Committee.

He is a member of A. G. A., Engineers Club, Society of Gas Lighting, American Society of Mechanical Engineers, American Society of Heating and Air Conditioning Engineers, and Society of Gas Engineering.

D. W. Chapman retires from Peoples Gas Light and Coke Company

D. W. CHAPMAN, manager, industrial department, The Peoples Gas Light and Coke Co., has retired after 43 years of service to his firm.

Long active in affairs of the American Gas Association, he served as chairman of the Industrial and Commercial Gas Section in 1931 and for many years was a member of the Industrial and Commercial Gas Research Committee. He was a charter member of the Hall of Flame.

Mr. Chapman joined Peoples Gas in 1912 as assistant chemist. In 1913 he transferred to the industrial department and was appointed assistant manager in 1920.

Magic Chef elevates Wilbur T. Trueblood and Albert W. Gruer

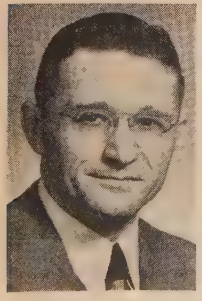
MAGIC CHEF, INC., has announced the elevation of Wilbur T. Trueblood to division sales manager, Southwestern sales division and Albert W. Gruer, Jr., to range merchandise manager.

Previously merchandising manager of the firm's gas range division, Mr. Trueblood will now head the last of ten sales divisions to be established during Magic Chef's recent general reorganization of sales territories. He joined the firm's advertising department in 1948, became sales promotion manager the following year, and in 1952 became advertising director as well.

Mr. Trueblood has been active on several American Gas Association committees, including the Domestic Range Committee, New Freedom Gas Kitchen Committee, and Industrial and Commercial Advertising Committee. He won a meritorious service award for his work from 1952 to 1954 as chairman of the Gas Appliance Manufacturers Association Domestic Gas Range Division, and is at present chairman of that division's promotional committee.

Mr. Gruer joined Magic Chef in 1949 as market research manager, and was appointed to the additional position of assistant to the president last year. He is presently chairman of the Marketing Research Committee, Liquefied Petroleum Gas Association, and vice-chairman of a similar committee of GAMA.

Ohio Fuel Gas promotes Betsch, Briscoe, Didway, Harder



Walter D. Betsch

WALTER D. BETSCH was elected by Ohio Fuel Gas Company as the new vice-president in charge of rates, to succeed James A. Scanlon. Filling the post of rate department manager vacated by Mr. Betsch is I. L. Briscoe, former supervisor of rate accounting. In addition, J. C. Didway has been promoted to general representative, and Richard C. Harder to Columbus district special representative.

An American Gas Association member, Mr. Betsch started with Ohio Fuel in 1931 shortly after his graduation from Ohio Wesleyan University. He has successively held the posts of clerk in the general accounting department; assistant supervisor of cost records; supervisor of taxes, insurance, and depreciation; assistant treasurer; and assistant vice-president.

Mr. Briscoe, a graduate of Ohio State University, joined Ohio Fuel in 1949, and has been employed by the firm as a member of the statistical department, rate accountant in the rate department, and head of rate accounting.

Mr. Didway, who has worked with the utility for the past 16 years, was formerly Columbus district special representative. As general representative, he will work on special assignments by Mr. Betsch.

Richard C. Harder, previously an air conditioning specialist in the company's business promotion department, has been associated with Ohio Fuel for 22 years.

Wittmann succeeds Mettenet as Peoples Gas Light vice-president

Bernard H. Wittmann

Francis X. Mettenet

BERNARD H. WITTMANN, assistant vice-president in charge of sales, The Peoples Gas Light and Coke Co., has been promoted to vice-president in charge of sales to succeed Francis X. Mettenet, who retired on September 1.

Mr. Wittmann joined Peoples Gas as a junior sales clerk in 1920. He advanced through several positions in the sales division, and in 1939 was appointed manager of domestic sales. He was elected assistant to the vice-president of sales in August, 1953, and assistant vice-president in charge of sales in April, 1955. Mr. Wittmann was educated in engineering at Lewis Institute, now a part of the Illinois Institute of Technology.

Mr. Mettenet, who has held his post as vice-president since 1936, has been identified with the public utility field since his graduation from Cornell University in 1912. Prior to joining Peoples Gas in 1935, Mr. Mettenet was general sales manager of Public Service Company of Indiana and affiliated companies with offices in Indianapolis.

Both men are members of the American Gas Association.

Southern Counties appoints Frank Seitz sales vice-president

APPOINTMENT of Frank N. Seitz as vice-president of Southern Counties Gas Co., of California was announced by the utility's board of directors. Mr. Seitz, formerly the company's general sales manager, will be in full charge of the utility's sales programs, a responsibility he assumes from Frank B. Wright, vice-president.

The latter has been assigned a new responsibility—that of coordination of activities of the company's eight operating divisions—in addition to his direction of the utility's customers', customer service, public relations, news and publications, and advertising departments.

Mr. Seitz, a graduate of Washington University, St. Louis, Mo., has been in the natural gas business in California since 1939. He came to Southern Counties as sales manager in 1950 from its affiliate, Southern California Gas Company.

He is a member of numerous organizations, including the American Gas Association and Pacific Coast Gas Association.

Perfection Industries names White and Wright sales managers

PERFECTION INDUSTRIES, INC., announces that Phillip J. White has been named sales manager of its refrigeration contract division, and Donald G. Wright has been named general sales manager of its appliance and furnace sales divisions. The latter assumes the duties of J. H. Rasmussen, who has retired as vice-president and director of appliance sales.

For the past three years, Mr. White has been sales manager of the refrigeration products division of the Hupp Corp., whose central air conditioning business has been purchased by Perfection. He has also been assistant to the president of Amgears, Inc., a Hupp subsidiary. He is a graduate of Cleveland's Fenn College.

Mr. Wright, a Yale graduate, has been general manager of the Globe stamping and refrigeration products division of Hupp Corporation. He is a member of the Society of Automotive Engineers, the American Society of Refrigeration Engineers, and Tau Beta Pi, engineering honor society.

Names in the news—a roundup of promotions and appointments

UTILITIES

Paul C. Koechel has been appointed to the newly created position of supervisor of public relations at Equitable Gas Co., Pittsburgh.

Appointment of **Homer R. Ross** as rate engineer of Southern Counties Gas Company has been announced. Mr. Ross' new duties will include cost of service studies, rate design, and assistance in the management of the rate department.

Maintenance of The Ohio Fuel Gas Company's motor transport fleet will now be supervised by **Ernest P. Fry,** who has a 23-year safe driving record. As motor transport inspector, he will see that cars and trucks are in safe operating condition, and will determine motor equipment needs of the various departments.

The affiliated companies, Natural Gas Pipeline Company of America and Natural Gas Storage Company of Illinois, announce that **Orval C. Davis** has been assigned superintendent of the storage division, a new division formed with headquarters in the Chicago office of the companies. New superintendent of the compressor station at Herscher, Ill., is **Ronald D. Milam,** who has been with the system since 1940. In addition, **Lenert C. Foehner** has been named district superintendent of storage in the newly formed storage division at Herscher.

J. N. Carpenter has been advanced from assistant pipeline superintendent to pipeline superintendent at Lone Star Gas Co., succeeding **Luther Tolbert** who has retired. He will be in charge of construction, maintenance and repairs of the company's transmission work.

Dale Teel, former junior process engineer, has been appointed manager of the Hilo division of the Honolulu Gas Co., and of Pacific Refiners, Hawaii branch. He replaces **Don Marlette,** who resigned recently.

MANUFACTURERS

Sprague Meter Company announces the appointment of **Charles R. Woodrum** as sales engineer to cover northern California, southern Oregon, Nevada. His headquarters will be in San Francisco. **Robert Clark** has been named Western division engineer, after having served Sprague as engineering assistant and research engineer. **Frank L. Morgan,** new Western regional manager, will coordinate all Sprague operations in the West Coast territory.

Martin G. Raake and **Hascal Simmons,** formerly zone managers for The Coleman Co., Inc., have been appointed national field sales managers of the heating and air conditioning division of the company. Mr. Raake, who has served Coleman since 1938, will head the sales organization for floor furnaces, wall heaters, water heaters, and space heaters; Mr. Simmons, who joined the firm seven years ago, will direct field sales operations on Blend-Air central heating and air conditioning equipment. Both will operate from Wichita.

New assistant to the general manager of West Coast divisions of Carrier Corporation is **Ray A. Tritten.** Mr. Tritten has served Carrier as assistant superintendent, standards department; director of process engineering; chief factory engineer; and product manager. Day and Night, one of Carrier's four West Coast divisions, has appointed **George Kelly** as manager of heating and air conditioning. He will organize and disseminate information from the firm's air conditioning and heating engineering staff.

Miles W. Boekeloo has been appointed sales representative for Ruud Manufacturing Company to contact utilities and LP-Gas distributors in southern Michigan in behalf of Ruud's line of residential, commercial, and industrial water heaters. Before joining Ruud, he spent 30 years with Michigan power and appliance firms.

Magic Chef, Inc., announced three recent managerial appointments in its sales divisions. **George P. Velte,** former Eastern division sales manager, is now manager of the newly created New England sales division. **Frank S. Savage,** former Atlantic division sales manager, succeeds Mr. Velte. **Frederic A. Deininger** is now manager of the Atlantic sales division.

Paulin, Carlyon, head Michigan Gas Association

Roland Paulin

ROLAND R. PAULIN, vice-president and manager of operations, Michigan Consolidated Gas Co., was elected president of the Michigan Gas Association at the group's annual convention at Mackinac Island. William R. Carlyon, division manager, Consumers Power Co., Lansing, is vice-president.

Three new directors also were elected. They are William H. Huffmaster, general manager, Southeastern Michigan Gas Co.; David Eckman, vice-president in charge of operations, Battle Creek Gas Co.; and John B. Simpson, general supervisor of gas operations of Consumers Power Company. Re-elected secretary and treasurer was Milton G. Kendrick, sales manager, Michigan Consolidated Gas Company.

Mr. Paulin has been with Michigan Consolidated in Detroit since 1926 and has served in the manufacturing, sales and engineering departments. He became vice-president in 1950, operations manager in 1952.

Appoint Deckman

FRED H. DECKMAN has been elected assistant treasurer of the Columbia Gas System Service Corp., it was announced by George S. Young, president. Mr. Deckman joined Columbia in 1927 as an insurance engineer. He has handled public utility inspection and rating for the Ohio and West Virginia Inspection Bureaus, and will continue to handle insurance matters for the system.

Mr. Deckman, who is completing his 25th year on the Insurance Committee of the American Gas Association, received his degree in electrical engineering from Ohio State University. He was elected to Eta Kappa Nu, honorary electrical engineering fraternity.

Connecticut Light and Power Company advances Wallace, Hanel

THE ADVANCEMENT of Anthony E. Wallace, area development representative, The Connecticut Light and Power Co., to director of public information became effective August 1. Mr. Wallace is now responsible for the development and execution of the company's over-all public relations programs and policies.

Also announced is the appointment of George G. Hanel, advertising manager, to manager, advertising and publicity department. He is now responsible for the development of the company's advertising and publicity programs.

Since many of the utility's sales and public relations activities are closely related, several temporary transfers will be made between the two departments to give employees broader experience. The following transfers will be effective for six months. Donald S. Valden, sales promotion manager, will become area development representative; Boardman G. Getsinger, copy supervisor, will assume Mr. Valden's responsibilities as sales promotion manager; and Raymond E. Donovan, copywriter, will take over Mr. Getsinger's duties as copy supervisor.

Appoint J. Frank Skidmore planning and development manager

EQUITABLE Gas Company has announced the appointment of J. Frank Skidmore as manager of planning and development of Kentucky West Virginia Gas Co., a subsidiary firm. Mr. Skidmore began service with Equitable in 1936 and subsequently advanced to assistant to the operating manager, the position held prior to his new appointment.

With headquarters at Ashland, Kentucky, Mr. Skidmore will be in charge of all engineering, gas measurement, geological, and related functions for the Kentucky-West Virginia Gas Company.

He is a member of the American Gas Association, Pennsylvania Natural Gas Men's Association, Engineering Society of Western Pennsylvania, American Petroleum Institute, and the Pittsburgh Chamber of Commerce.

Johnson retires

JESSE L. JOHNSON, vice-president, Providence Gas Co., retired recently and has been succeeded by Everett A. Taylor, former general sales manager. Mr. Johnson, chairman of the American Gas Association Gas Refrigeration Committee, was for a number of years a member of the Residential Gas Section Managing Committee. He was also a former president and an active member of the New England Gas Association.

Advance Bell

JAMES F. BELL has been advanced to the position of executive vice-president of Portland Gas and Coke Co., according to a recent announcement by President Charles H. Guefroy. Mr. Bell joined the utility early in 1946 as assistant to the president. He was elected vice-president in 1949, director in 1950. A member of the American Gas Association, Mr. Bell is also a director of the Pacific Coast Gas Association.

Nensel, Payne—managers

EMIL P. NENSEL has been appointed manager of the new sales service department at Servel, Inc., and Roland D. Payne has been appointed sales manager of the home appliance sales division. The chief function of the new sales service department will be to supervise and coordinate non-technical services to customers. Servel now has seven major departments in its newly reorganized home appliance sales division.

Milwaukee Gas Light selects Nemeyer president

S. Lloyd Nemeyer

S. LLOYD NEMEYER has been elected president and a director of Milwaukee Gas Light Company to succeed Dudley B. W. Brown, who resigned to become vice-president and secretary of American Natural Gas Company. The new president has been actively associated with the Milwaukee Gas Light Company as a consultant on financial and operating matters since 1943.

Mr. Nemeyer is a graduate of the School of Commerce of the University of Illinois. Following his graduation, he took a position on the accounting staff of the Illinois Power Co., Decatur, Illinois. He joined the firm of Arthur Andersen and Company in 1940. He worked in the utility department of the firm in the capacity of a junior accountant, senior accountant and utility manager, and in July 1949 he was elected a partner in the firm.

He has supervised the services rendered by Arthur Andersen to many large utility companies including the Peoples Gas Light and Coke Company System, Iowa-Illinois Gas and Electric Co., Iowa Power and Light Co., Natural Gas Pipe Line Company of America and Texas-Illinois Natural Gas Pipe Line Company.

He is a member of the American Gas Association.

Haase purchasing agent

KENNETH E. HAASE has been appointed purchasing agent for four Consolidated Natural Gas System companies, to succeed L. B. Hartman, who retired in July. He will have offices in Pittsburgh, with The Peoples Natural Gas Co., a subsidiary.

Mr. Haase began with Peoples in 1936 in the printing department, and held various responsible assignments in the firm's treasury department. He became assistant purchasing agent in 1947.

Mr. Hartman, a member of the American Gas Association, joined Hope Natural Gas Co., a Consolidated subsidiary, in 1916. He held several managerial positions, and was assistant to the general superintendent of the firm prior to accepting the position of purchasing agent with the parent firm.

Oklahoma Natural Gas promotes Johnston, Peterson, Glamser

THREE MEMBERS of the general operating department, Oklahoma Natural Gas Company, having a total of 53 years' service, have recently received promotions. J. E. Johnston, Assistant to the general superintendent, has been promoted to superintendent of transmission, production and engineering; M. J. Peterson, assistant chief engineer, to chief engineer; and J. H. Glamser, assistant to the general superintendent, to superintendent of distribution, utilization and cathodic protection.

A geological engineering graduate of the University of Oklahoma, Mr. Johnston has been with the company since 1939. He began in the Oklahoma City district distribution department and was moved to the engineering department. In 1950 he was promoted to manager at the company's El Reno office. In 1951 he was promoted to assistant distribution superintendent of the Oklahom City district and then to assistant to the general superintendent.

Mr. Peterson has been a member of the Oklahoma Natural's general engineering department since he joined the company in 1934, and has been engaged in pipeline pressure piping and structural design and different phases of the company's general engineering program. He was graduated from Oklahoma A. & M. College with a degree in mechanical engineering.

Mr. Glamser was graduated from Oklahoma A. & M. College in 1939 with a mechanical engineering degree. He joined the company that year in the Shawnee district distribution department. In 1950 he was transferred to Tulsa as operating assistant in the general office. In 1951 he was promoted to dispatching engineer, and in 1952 was promoted to assistant to the general superintendent.

LP-Gas council names 3 executives and 6 representatives

THE NATIONAL COUNCIL for LP-Gas Promotion has announced the recent election of three top officers, and the appointment of six new representatives.

Kenneth D. Wolfe, vice-president, Fisher Governor Co., Marshalltown, Iowa, was elected president to succeed the late James E. Pew. Mr. Wolfe, a member of the council since 1953, was elected chairman of its executive committee in January, 1954, and re-elected in November. Active in American Gas Association and Gas Appliance Manufacturers Association, he has for 20 years been a member of committees and an instructor at gas measurement short courses.

A. H. Cote, general sales manager, Suburban Propane Gas Corp., Whippany, N. J., was named chairman of the executive committee, and Harry Morley, advertising manager, FauceHot Heater Co., La Porte, Ind., treasurer.

In addition, the council has reported the resignation of Robert E. Borden, director of the LP-Gas Information Service, and council secretary. Mr. Borden, who entered the LP-Gas industry in 1949, has not yet disclosed his future plans.

The three national associations co-sponsoring the national LP-Gas promotional program have named the following representatives to the council. Arthur E. Bone, president, Eastern Propane Co., Malvern, Pa., and K. H. Dickson, president, Uregas Service, Inc., Moberly, Mo., were appointed by the Liquefied Petroleum Gas Association. Mr. Bone was also named a vice-president and member of the executive committee.

The Natural Gasoline Association selected Frank Perry, vice-president, Cities Service Oil Co., Bartlesville, Okla.; H. W. Rigterink, manager, Solgas Division, Sun Oil Co., Philadelphia; and Paul Bagley, sales manager, Lone Star Producing Co., Dallas, Texas. Harold E. Jalass, vice-president, Cribben & Sexton Co., Chicago, was appointed by GAMA.

Name Walter T. Lucking Arizona president, A.G.A. director

WALTER T. LUCKING has been elected president of the Arizona Public Service Company, to succeed Henry B. Sargent. Mr. Lucking will serve on the American Gas Association's board of directors until October, 1956, to complete the unexpired term for Mr. Sargent.

The newly elected president was formerly a vice-president of the utility, and an assistant to the president. Previous to this, he was employed by the Ohio Public Service Co., and its parent firm, Cities Service.

Mr. Sargent resigned from his position with Arizona Public Service Company to become president of American and Foreign Power Company and its subsidiary, Ebasco International Corporation. He has served as a director of A.G.A. since October, 1954.

Appoint Webb Oklahoma Natural Gas district vice-president

H. C. WEBB, vice-president in charge of sales, Oklahoma Natural Gas Co., has been promoted to vice-president in charge of the Oklahoma City district of the company, to succeed the late Thomas H. Sterling.

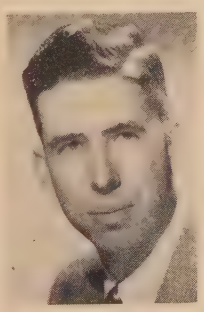
Mr. Webb started his public utility career with the street railway system in Houston, Texas, in 1918. Since then he has had 37 years' experience in the utility industry in Texas, Louisiana, Virginia, Washington, and Oklahoma.

He is presently serving as first vice-president of the Oklahoma Utilities Association and is a director of the Southern Gas Association. He is also a member of the American Gas Association and has served on numerous A. G. A. committees.

Mr. Webb will head the company's operations in Edmond, Guthrie, El Reno, Yukon, Norman, Clinton, Cordell, Elk City, Erick, Hobart, as well as in Oklahoma City.

Gellert assumes Spokane presidency

NATHAN H. GELLERT, JR., former vice-president in charge of distribution, Seattle Gas Co., has assumed the position of president and general manager of Spokane Gas and Fuel Company. The change became effective September 1, when Spokane Gas president and general manager since 1937, Frank A. Woodworth, retired. Mr. Woodworth has stated that he will remain active in company affairs as director and consultant.



Nathan H. Gellert, Jr.

Mr. Gellert, a Yale graduate, entered the gas industry as assistant to the traffic manager of Central Fuel Corp., Chicago. He has held positions at the Gas Corporation of Michigan, Independence (Iowa) Gas Co., and Atlantic Gas Corporation.

In 1945, Mr. Gellert joined Seattle Gas Company as assistant to the general manager, later becoming utilization manager, superintendent of distribution and utilization, and finally, vice-president in charge of distribution.

Both Mr. Gellert and Mr. Woodworth are members of the American Gas Association.

Name McIntire

APPOINTMENT of Fred H. McIntire as assistant to the president of American Louisiana Pipe Line Company has been announced by President Henry Fink. Mr. McIntire recently resigned as special agent in charge of the Detroit office of the FBI.

Mr. McIntire was employed by oil and gas producing companies in the Southwest prior to his entry into government service with the FBI 14 years ago. In addition to other duties, he will serve as director of personnel for American Louisiana, a newly formed company which will construct a $130,000,000 natural gas pipeline from southern Louisiana to Detroit. American Louisiana is an affiliate of Michigan Consolidated Gas Company.

Fuels expert Arno C. Fieldner retires from U.S. Bureau of Mines

DR. ARNO C. FIELDNER, 74, retired recently from his position as chief fuels engineer, U. S. Bureau of Mines. An authority on fuels, Dr. Fieldner is renowned for his contributions to the gas industry.

Dr. Fieldner started with the Bureau of Mines as an assistant chemist in 1909, shortly after his graduation from Ohio State University. While working with the government, he improved methods of testing and analyzing coal, coke, and gas, and developed American methods of testing gas absorbents and gas masks.

A member of the American Gas Association, he has served on numerous committees and subcommittees, and has twice been elected chairman of the Chemical Committee. He has presented many papers on chemical research to the Association.

Dr. Fieldner has also been a member of the American Chemical Society, American Institute of Chemical Engineers, American Institute of Mining and Metallurgical Engineers, and American Society of Testing Materials.

Elevate Claar

R. GEORGE CLAAR of Groveport has been named safety director for The Ohio Fuel Gas Co., to succeed the late R. C. Kadel. Mr. Claar joined Ohio Fuel in 1936 as an operator in the compressor department at Crawford compressor station near Sugar Grove. In 1948 he was promoted to general inspector with the compressor department in Columbus, and in 1951 was named assistant safety director.

Mid-West elects Baxter

EVERETT E. BAXTER, General Electric and Gas Co., Lincoln, has been elected secretary-treasurer of the Mid-West Gas Association. He is a past president of the organization. Mr. Baxter fills the unexpired portion of the term of office of Harold E. Peckham, Northern States Power Co., Minneapolis. The latter resigned September 7, after eight years of service to the association.

Announce officers

S. C. MARSHALL, secretary, Gas Appliance Engineers Society, announces election of the following officers for the year starting June 1, 1955: E. J. Horton, president; A. F. Craver, vice-president; S. C. Marshall, secretary; O. W. Griefnow, treasurer; and M. J. Caparone, K. T. Davis and H. M. Reeves as trustees for one, two, and three years respectively.

Henry R. Cook

former vice-president, Baltimore Gas and Electric Co., died last month at the age of 71.

Mr. Cook was graduated in 1905 from the Stevens Institute of Technology, and joined the Baltimore utility as an assistant engineer in the gas division in 1918. He became general superintendent of gas operations in 1924. He was named a vice-president in 1938, a director in 1947, and held both positions until his retirement in 1950.

A former director and member of the executive committee of the American Gas Association, he was also a member of the board of trustees of the Institute of Gas Technology.

Surviving are his widow, two sons, and a sister.

Raymond Charles Kadel

safety director for The Ohio Fuel Gas Company for 38 years, died unexpectedly while vacationing in Canada. Mr. Kadel was visiting at the home of his sister in Cobourg, Ontario, when he was stricken.

Active in civic work in Columbus, he was a first aid instructor for the American Red Cross and was a Scout leader. He was a member of the board of directors of the Central Ohio Council of Boy Scouts and Scoutmaster of a troop in Columbus. Mr. Kadel was a member of the American Gas Association Accident Prevention Committee.

James E. Pew

54, member of the board of directors and manager of the natural gas and natural gasoline division, Sun Oil Co., died of coronary occlusion in Malvern, Pennsylvania. Mr. Pew was president of the National Council for LP-Gas Promotion, former president of the National Gasoline Association of America, and a member of the Natural Gas and Oil Resources Committee and the American Petroleum Institute.

A graduate of the Massachusetts Institute of Technology, Mr. Pew held positions at United Natural Gas Co., Hope Natural Gas Co., and Virginia Gasoline and Oil Company. In 1945, he received the Hanlon Award of the Natural Gasoline Association of America for his excellent work as director of the Natural Gas and Natural Gasoline division of the Petroleum Administration for War.

Survivors include his widow, two daughters, and eight grandchildren.

Timothy E. Ryan

who served Consumers Power Company for the past eight years, died last July at the age of 46. Mr. Ryan was successively employed as construction stores supervisor, material control supervisor, assistant storeroom materials supervisor, and storeroom materials supervisor at Consumers Power Company.

Mr. Ryan served as a member of the American Gas Association Purchasing and Stores Committee, and Subcommittee on Mechanized Stock Control.

Surviving him are his widow and three daughters.

Edward L. Stack

treasurer, Delaware Power & Light Co., died last July at the age of 54. Mr. Stack, a veteran in utility work, joined Delaware Power & Light in 1945 as office manager, and was promoted to treasurer in 1949. He was a special accountant of The United Gas Improvement Company from 1927 to 1936, then moved to Bridgeport to become assistant treasurer of the Connecticut Railway and Lighting Company.

His widow, Elizabeth Stack, survives him.

Clarence H. Waring

73, manager, Kansas City (Kans.) division, The Gas Service Co., and member of the board of directors, died suddenly on July 19.

Mr. Waring worked for The Gas Service Company and its affiliates for the past 50 years, following his engineering studies at the University of Kansas. He held various positions in the system, including general superintendent, Kansas City Gas Co., and Wyandotte County Gas Co., and general manager of Wyandotte County Gas Company.

Extremely active in civic and public affairs, Mr. Waring was well known for his work with American Gas Association Laboratories. Most recently, he served as vice-chairman, Laboratories Managing Committee; chairman, Approval Requirements Committee; and chairman, Executive Committee, Approval Requirements Committee.

Mr. Waring was noted for his interest in American standards, and was awarded an American Standards Association certificate for his contributions to that field. His service to A. G. A. Laboratories requirements groups extended over the past 20 years.

Survivors are two daughters and five grandchildren.

R. C. Wirtz

54, secretary of the Alabama Gas Corporation died suddenly on July 30.

Mr. Wirtz moved to Birmingham in 1948 to become assistant secretary of the Alabama Gas Corporation and was appointed to the position of secretary in 1953. Prior to this he had been associated with the Federal Water Service Corp., N. Y.; the Scranton-Spring Brook Water Service Co., Wilkes-Barre, Pa.; and was assistant secretary of the New York Water Service Corporation. He was a member of the American Gas Association and the Southern Gas Association.

Mr. Wirtz is survived by his widow, two daughters, and two granddaughters.

How property records aid forecasts

(Continued from page 30)

the principal credit to the depreciation reserve. Furthermore, as the annual growth, decline and magnitude of the property accounts is intelligently estimated for each year of the forecast period, the effect of such changes is simultaneously reflected in the depreciation reserves.

The credits to the property accounts for estimated retirements are correspondingly charged to the reserve for depreciation accounts along with the net dismantling costs as shown in the schedule of estimated property expenditures. Transfers between accounts or plants require a parallel transfer within a reserve or between reserves. Proposed changes in the utility nature, use or usefulness of property also have an accompanying accounting effect on the depreciation reserves.

Regulatory application

If the utility is under a regulatory jurisdiction wherein original cost is either the law or the rule for rate base determination, the projection of the rate base is practically simultaneous with the determination of property and reserve balances for the period of the forecast. Under original cost circumstances, rate base calculations would seem to need no further explanation in this article.

If the rate base is calculated on a fair value concept or under any other definitive finding of rate base, such as cost of reproduction, trended original cost or an arithmetic weighting of these, it is a simple matter to apply the value formulae to the retirements estimated for the forecast period, and using estimated additions, compute a projected rate base adequate for measuring projected earnings.

If on the other hand the most recent rate base valuation was not a matter of definition but a commission pronouncement without prescription or method, the projection into the future of that rate base will be a matter of economic conjecture and legal interpretation rather than a matter of accounting technique. Under these circumstances, it is likely that a conclusive rate base projection cannot be made, and other criteria must be applied to the measurement of projected earnings.

Simultaneous with or subsequent to the projections of the fixed capital accounts, the market analysis will be used to develop estimates of sales and gross income. At the same time estimates of sales, operating, administrative and financial expenses will be developed by the departments concerned, resulting in a computation of net income for the forecast period.

Sample schedules are usually prepared covering each phase of the long range forecasting calculations and submitted to management for review as to form and content before preparing the final set of schedules to be used in the projection. The final schedules are then assembled in book form for submission to management for their use in making decisions pertaining to future operating, financial and related problems.

The value to top management of a long range forecast of financial conditions will depend largely upon the reliability of the individual segments of the forecast. To illustrate, if the market forecast or the estimate of potential supply of the service to be furnished represents unskilled preparation, plant requirements and sales estimates will be correspondingly undependable. If plant requirements are unwisely estimated, property projections and operating expense estimates will be of small value.

Judgment needed

If projections of the fixed capital accounts are inexpertly developed, no reliance can be placed upon an indicated need for rate relief or upon warnings of excess earnings. The validity of the entire forecast is dependent upon the reliability of each portion and the achievement of the reliable projection of the fixed capital account calls for a measure of economic, legal and operating judgments beyond the exercise of accounting techniques.

Forecasting is an important management obligation of many utilities today. Changes in markets and operating and financial conditions create problems that must be anticipated well in advance to help in the operation of a utility business on a sound and economical basis. Management is alerted to many future problems when they have the benefit of analyzing the various situations uncovered in a long range forecast.

Long range forecasting is a new challenge to the utility accountant and new justification for maintaining continuing property records.

1955

SEPTEMBER

11-13 •Independent Natural Gas Association of America, Jasper National Park, Canada
14-15 •Seventh Annual A.G.A. Accident Prevention Conference, Little Rock, Ark.
25-30 •International Gas Union Sixth Conference, Hotel New Yorker, New York

OCTOBER

12-14 •GAMA Annual Meeting, El Mirador Hotel, Palm Springs, Calif.
17-19 •A.G.A. and Pacific Coast Gas Association Convention, Los Angeles, Calif.
17-21 •National Metal Exposition, Philadelphia, Pa.
18-21 •The American Dietetic Association, St. Louis, Mo.
18-22 •National Safety Congress and Exposition of National Safety Council, Chicago, Ill.
24-26 •American Standards Association, Sheraton Park Hotel, Washington, D. C.
24-26 •Pacific Coast Regional Restaurant Convention and Exposition, Biltmore Hotel, Los Angeles, Calif.
24-26 •Sixth National ASME Conference on Standards, Washington, D. C.
24-27 •National Association of Railroad & Utilities Commissioners, Asheville, N. C.

NOVEMBER

2-3 •American Home Laundry Manufacturers Association, The Palace Hotel, San Francisco, Calif.
6-9 •Controllers Institute of America, Hotel Statler, Los Angeles, Calif.
13-18 •ASME, Congress and Hilton Hotels, Chicago, Ill.
16-18 •Southeastern Gas Association, Roanoke Hotel, Roanoke, Va.

1956

JANUARY

23-24 •Industrial Heating Equipment Association, La Salle Hotel, Chicago, Ill.

MARCH

12-16 •National Association of Corrosion Engineers, Hotel Statler, New York
19-21 •Mid-West Gas Association, Hotel Fontenelle, Omaha, Neb.
22-23 •New England Gas Association, Annual Meeting, Hotel Statler, Boston, Mass.
22-23 •Oklahoma Utilities Association, Annual Meeting, Oklahoma City, Okla.

Personnel service

SERVICES OFFERED

Sales Executive—successful experience, and broad, mature background with leading appliance manufacturers. Close personal acquaintance with leading U.S. and Canadian distributors, and U.S. mail order houses and chain store buyers. Has hired, trained, and supervised factory sales organizations and national groups of manufacturers' representatives. Excellent working knowledge of manufacturing and advertising. Fitted for top level responsibilities in sales department of manufacturer, utility, or large retail store appliance operation. **1811.**

Gas Sales Engineer—experienced in industrial sales engineering, residential and commercial heating, water heating and domestic appliances. Knowledge of sales procedure in both large and small utility companies, natural, manufactured and LP-Gases. Can relocate. **1812.**

Manufacturers' Representative—since 1938, wants gas appliance line for California headquarters Los Angeles. Residential, commercial and industrial experience. **1813.**

Executive—now hold position with small Gas Utility as vice-president and general manager, opportunity limited. Would like to locate with some company with unlimited opportunity. Also have held management position with combination utility. Qualified for top management, excellent references. **1814.**

Graduate Chemical Engineer—seven years varied gas experience including distribution utility service plus nation-wide sales service contacts with natural gas utilities 1946 to 1953; straight technical sales (plastics) outside gas industry 1953 to present; desires technical sales job contacting gas and/or chemical industry with nominal amount overnight travel, or sales connection with an all-gas utility. Married (35). **1815.**

Customers Service Man—nine years experience with large New York City gas utility servicing and repairing all domestic gas appliances. Graduated June 1955 with degree in Bachelor of Business Administration, major in Business Management. Desire position with utility or manufacturer which would offer an opportunity in business management utilizing my experience and education. **1816.**

Manufacturers Sales Representative—for past 21 years have managed sales, last in the New York Metropolitan area, for one leading national manufacturer of ranges, water heaters and space heaters. Seek new connection involving promoting and merchandising domestic gas appliances preferably in the New York area. Top notch performance and references. **1817.**

Sales Executive—interested in sales position in New York City area. Twenty-five years sales background, 18 years gas appliances—refrigeration, water heaters, heating and air conditioning, and ranges. (Income, 5 figures). **1818.**

Gas Air Conditioning Manager—graduate engineer with long experience and broad background in all distribution phases of gas operated cooling and heating equipment. Have worked with manufacturer and top distributor in sales, application, design and service. Have also trained utility and dealer groups in the use of equipment for residential, commercial and industrial applications. **1819.**

Salesman and Factory Representative—ten years sales experience. Five years in gas appliances. Has sales promotion, public relation, market research and mechanical experience. Have conducted sales and service schools on both dealer and utility level in the shop and in the field. Considerable traveling experience. Résumé available upon written request on your letterhead. **1820.**

Engineering student—B.S. '50 Chemistry, attending evening classes for degree in chemical engineering. Desire association with Greater New York firm, with opportunity for advancement to engineering position upon completion of studies. **1821.**

POSITIONS OPEN

Salesman—permanent position with natural gas utility serving approximately 2,400 gas meters located in western Kentucky. Must have at least a high school degree and approximately 15 years' experience in advertising and selling gas and appliances. Must be qualified to evaluate industrial, commercial and residential size heating, ventilating and other services equipment and installations, and make cost analyses thereof. Remuneration based upon salary and commissions on sales of appliances and gas. **0773.**

Sales Manager—Pennsylvania merchandising utility has opening for division sales manager. Please reply in writing, giving complete résumé. **0774.**

Commercial Sales Supervisor—merchandising utility wants commercial sales supervisor. Salary and override. Give complete details. Applications will be held in confidence. **0775.**

Test Engineer—large eastern gas utility desires services of an engineer experienced in appliance testing. Knowledge of mixed gas and familiarity with A. G. A. requirements preferred. Reply giving age, education and experience. **0776.**

Gas Appliance Development Engineer—experienced in A. G. A. testing procedure on central heating. Mechanically inclined and capable of making necessary changes desirable. Submit résumé. Bay area, California. **0777.**

Assistant Manager, Gas Operations—Established company serving about 80,000 gas customers wants qualified man 35-40 years as assistant to man in charge of gas operations. Advancement to top position in 2 or 3 years assured for right man. Must have broad experience in gas operations, and qualified to handle distribution, sales, and pricing problems. Salary $10,000 to $15,000. Give complete information, education, experience, background and other qualifications, send recent photograph. **0778.**

Industrial Sales Engineer—Assistant to sales manager prominent Connecticut manufacturer, experienced in application, sale and servicing of industrial furnaces, ovens and controls; requires versatile man who can write proposals, sell and service standard equipment. Send brief résumé including salary requirements for initial confidential consideration. **0779.**

Plant Accountant—Gas transmission company located in Rocky Mountain area requires plant accountant capable of supervising plant accounting section. Accounting degree and heavy plant accounting experience essential. Age under 40; salary open; liberal employee benefits. Submit details of qualifications and experience. **0780.**

Accounting Specialist—Accounting specialist for controller's department of natural gas transmission company located in Rocky Mountain area. CPA, accounting degree, and five years gas utility experience preferable. Age under 40; salary open; liberal employee benefits. Submit details of qualifications and experience. **0781.**

Stores Accountant—Gas transmission company located in Rocky Mountain area requires stores accountant capable of taking charge of all stores accounting and supervision of field accounting. Accounting degree and five years of utility stores accounting experience essential. Age under 40; salary open; liberal employee benefits. Submit details of qualifications and experience. **0782.**

Gas Meter Engineer—experienced in operation, testing and maintenance of displacement and orifice meters. Opening is with sound, fast growing, midwestern utility serving 140,000 customers. Good opportunity for advancement. Give details of experience, education and personal data. **0783.**

Project Engineer—a large manufacturer of heating and air conditioning equipment is expanding its engineering staff facilites. Has an opening for a man qualified to assume design responsibility on gas and oil-fired residential heating equipment. Located near Chicago. In responding, include a résumé of experience, background and salary requirements. **0784.**

Manager—for natural gas utility, located in one of the southeastern states. Approximately 3,000 meters. Knowledge of distribution system operation, office procedures and appliance sales necessary, as well as public relations ability. Proper man will have free hand to exercise own initiative. Write particulars about self and past experience. **0785.**

Engineer—Eastern utility requires young engineer, preferably with some distribution experience. Qualified man would have ample opportunity for advancement in rapidly growing company presently supplying over 100,000 customers. Reply stating age, education and experience. Replies will be held confidential. **0786.**

PEP campaign

(Continued from page 31)

load and to hold existing load."

Many companies say, "We have it and we are keeping it."

Let's ask another question, "Will we have it—will we keep it?"

The answer to that should be tempered with the fact that a vast share of commercial kitchens are in sad need of modernization. Add to that an ominous factor—the steadily increasing pitch and tempo of advertising, selling and promotion of competitive equipment manufacturers. Whether based on truth or fiction, the competitive sales story is so large in scope and energy that it is beginning to snowball.

The gas industry cannot rely upon a favorable rate comparison to hold its standing against competition. It must match sales effort with sales effort.

Gas Appliance Manufacturers Association again this year is supporting the PEP campaign with a sales prize contest among the gas companies who participate in the A. G. A. project. Companies are divided into three groups: those having 25,000 or fewer meters; those having between 25,000 and 100,000 meters, and those having 100,000 or more meters.

To the company in each group reporting the highest sales of new commercial appliances in relation to its total number of meters, a $300 cash prize and an achievement award plaque will be presented.

This contest has brought about keen, but friendly rivalry among those who conducted campaigns in the past. As we go to press indications now point to even broader participation in both the campaign and the contest this year.

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